

STAGE
OSTUMING

NES BROOKS YOUNG

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STAGE COSTUMING



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Norton-Cleveland

A Costume of no Period or Nationality.

STAGE COSTUMING

BY

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COSTUME DIRECTOR OF
THE CLEVELAND PLAYHOUSE

Illustrated by the Author



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1933

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STAGE COSTUMING

CHAPTER I

LOOKING THE PART

WHAT COSTUME DOES FOR THE PLAY—INTERPRETING CHARACTER—EXPRESSING MOOD—CREATING ATMOSPHERE.

THE actor is the person he represents by virtue of looking the part. Appearance and personality are always associated, and the spectator attributes to the actor traits of character in keeping with his appearance. The success of this visual impression is the justification of the whole art of costume.

When the curtain rises, the spectator's first impression is of the costumes, before his eye takes in the set or his mind registers the meaning of the lines. And throughout the action the costumes contribute to his

understanding not only of the characters but of the play, in the same way that clothes help us to form our judgments of people and occasions in every-day life.

A really good costume explains itself, and if it were to walk across the stage alone, the audience would know at once what kind of person the character was. But a successful costume does even more; it explains to the spectator the mood of the characters, and gives him a key to the atmosphere of the play.

Our clothes betray us; they are like wax on which the print of our personality is impressed. This tell-tale quality of clothes is the underlying principle of costuming. The designer selects the dominating traits of the stage character and contrives the costume to portray them decisively.

In the public mind Charlie Chaplin is his costume, and indeed it is hard to believe that he could be so poignantly comic in any other. Shoes such as never flapped on human feet beyond the limits of the stage, they are still essentially the type a tramp might wear. They are down-at-the-heels gentility, cleverly and subtly overdrawn for the sake of portraying the character more vividly. Mr. Chaplin considers the details of his apparel so necessary to his acting that an attempt to imitate them by another comedian was made the basis of a suit at law.

The more character there is in a part, the more stress must be laid on character in the costume, to give every aid to the actor's portrayal. On the other hand, it would be a false note deliberately to make personalities out of the minor people of the play, when the author

has given them no character; and it is, of course, possible to over-emphasize any costume. More exaggeration in Mr. Chaplin's clothes would not make them any more amusing, but rather would work the opposite, by dragging comedy down to slapstick burlesque. A step too far, and the illusion is lost.

Character analysis is just one of the designer's problems; he must also concern himself with mood. He must follow the action of the play, and trace the changing emotions of the characters. He can do much to help the actors weave the delicate texture of mood from scene to scene. This will be recognized as the legitimate field of costuming by those women among us who have ever analyzed the reason why we pick out a certain dress to wear. Every woman knows that clothes speak a subtle language for her. She has always loved them because they express her so well.

A particular mood often runs through a play like a thread in a pattern of lace, and often it changes from scene to scene. Francesca in the first act of d'Annunzio's play is filled with joy, because she believes she is to be married to the most beautiful man in all Italy. She herself is beautiful, and full of the wonder of life. One imagines her opening her quatro cento equivalent of a clothes press and choosing a dress fit to express her feelings, a dress full of happiness and beauty.

The Francesca of the second act is almost another person. The joy has gone from her life, as the sign of it must have gone from her clothes. She is in a castle under siege—not a time for brocades and frivolity, even had she the heart. Through a trick she has

been married to a cripple, a man of hard and bitter nature, a brother of the man she loves. Strange if her clothes did not reflect the bitterness of her spirit, strange if she still dressed herself in the manner of the young girl whose life was full of joy.

The last act is the love scene and the death scene. Francesca has reached the climax of her life. She has given herself to her lover. She feels her impending doom, and the audience is made aware of the intense, passionate nature that will make her throw herself on her husband's sword as the final gesture of her life. Only an exceptional costume will carry to the spectators an impression of her consuming emotion. Anything characterless, or anything full of personality but lacking in the dramatic essence that makes a dress a proper vehicle for strong emotions, will fall far short of the scene.

In an American production Francesca wore in this act a dress of pigeon's blood red, untrimmed and fitting snug to the figure down to a line below the hips, where it fell away in long, loose folds around her. The sleeves were long and tight, extending over the back of the hand in a little point, and from just above each elbow a long narrow piece hung like a slender pennant, to the floor. The dress was almost severely simple, and it betrayed every movement of the body. The flaming color, the suppleness and the simplicity made it strikingly dramatic.

An even more comprehensive aspect of costuming is the creation of atmosphere. Costume can be an index to the environment of the characters, an instant indi-

cation of the historical period, social class, and even of the time of day. Of course, it cannot express, unaided, anything so specific as five o'clock on a rainy afternoon, but it can point out clearly the stuffiness of the middle class nineties at tea, the freshness of peasant life in the early morning, and many another impression of time and place that a play may demand.

Besides the main characters around whom the plot develops and whose personalities are the designer's chief concern, there are others less important to the action, who are in reality but part of the atmosphere. They are mere shadows, outlines on the background against which the real characters stand. They have no personality; they are but a step removed from the scenery. The designer must find out, not what their traits of character are, that he may mirror them in costume, but what they represent.

The ladies-in-waiting in "Hamlet" are atmosphere pure and simple. They are part of the mental and physical background that is the setting for the personality of Hamlet. They are Elsinore, a court just out of mourning and under the rule of a new king, and their dress can express these things as clearly as clothes can talk. They represent in their dress the fashions and feelings of the court, but not individual personality, since Shakespeare endowed them with none. The traditional clown's costume is full of the atmosphere of burlesque, though it is as devoid of personal characteristics as an angel's robe.

It is curious how much stress scientists have laid on atmosphere, as though they would have us believe our-

selves but the product of our environment. Clearly, it is an important factor in life, and, since drama chiefly concerns itself with mirror-holding, an important factor on the stage as well. Many and many a play depends on the creation of atmosphere. Certainly costume cannot do this alone, unaided by scenery and speech, but scenery and speech are never enough without the help of proper dress.

These are the manifold possibilities of costume, but not to be achieved without a realization of their scope and a conscientious interpretation of the play itself. It sounds ridiculous to say, "Read the play", but many a production looks as if the designer had found his inspiration almost anywhere but in the author's lines. He should make himself so familiar with the play that it becomes part of the background of his consciousness, as much instinctive knowledge as the way he holds a pencil.

But too much emphasis on costume is as great a sin as the wrong kind of emphasis. It is sometimes easy for the designer to forget that costumes are not the whole play. Of course, there are plays that rely mainly on costume for their effect, but these are apt to be more in the nature of pageantry than drama. They give the costume artist an orgy of design, but they do not fall to his lot very often. By far the greater number of costume plays are not primarily to please the eye, but rather to expound a theme, or tell a story in a historical setting. When this is the case, the costumes must not shout so loudly that the playwright cannot make himself heard.

In "The Sunken Bell" by Hauptmann, the designer cannot with honesty make his costumes anything but subordinate to the symbolism of the play. There are two groups of characters in "The Sunken Bell", the peasants, who stand for reality and the chains of circumstances which bind us to our lives of every day, and the characters of mythology, who represent emotions in the abstract. Against these two alternating backgrounds the theme is developed, and it is so delicate and of such paramount intellectual importance that the designer may well feel like a man under shell fire in his effort to dodge out of the way of Hauptmann's ideas and do his duty by the characters at the same time.

One would hardly think of making a clothes model out of King Lear, but in the case of the king and all the other characters in the "Coq d'Or," one would not think of doing anything else, for opera, dance and extravaganza are different problems from the drama. It seems to be true that our eyes are quicker to receive impressions than our minds, so that over-emphasis on costume will poach on the intellectual in a play, but if it is a question of costume interpreting not words but music, then design is out of bondage.

And here we imagine the indignant protest of those readers who believe that music is not emotional but mental, and insist on listening to it with a frown of concentration, shut up in an ivory tower of passionless intellectualism. To them, anything at all, especially the audience and the actors, detracts from the pure flow of mentality that music demands. This

issue we intend to sidestep as neatly as possible, being of those to whom the Triumphal March in "Aïda" would not be half so thrilling without the splash and glow of color. But perhaps this mental detachment accounts for the toleration of two-ton Marguerites on the operatic stage.



CHAPTER II

SHADOWGRAPHS OF SHAPE

SUITABILITY AND PROPORTION—SILHOUETTE—PERIOD COSTUME AND THE REQUIREMENTS OF THE STAGE—VALUE OF ADAPTATION AND FAILURE OF SLAVISH COPY—WHY STYLES CHANGE.

Dress is the most active of the arts. Fashions change and designs become history almost before the material they are worked in shows wear. How simple it would be, if we had but one fixed idea of dress,—how simple and monotonous. But the fact is that there is no such thing as an absolute standard of perfection, and our ideas of beauty in dress are as much in the process of flux and change as our civilization. Each year brings a new fashion, a new experiment in beauty.

And yet through these constantly changing stand-

ards, we can trace one principle so fundamental that it holds good forever and applies eternally to every period and fashion.

The supreme law is Suitability. It ought to be printed in blazing headline type across the page, for if there is such a thing as good taste, suitability is its synonym.

Some of the aspects of suitability in dress are almost too self-evident to mention. Clothes are to be worn, and they must, of course, be wearable. They must bear a reasonable relation to the habits of the wearer, and take into account whether he is rich or poor, whether he leads an active work-a-day life or belongs to the ornamental classes. In other words, dress must be suitable to the occupation for which it is intended. A stage peasant is a visually convincing character only so far as his clothes are suited to the life he represents.

Proportion is merely another aspect of suitability, for proportion is in reality a proper regard for anatomy, and a well designed dress is suitable to the structure of the figure. A headdress that appears too heavy for the neck to support is not in good proportion, and clothes that give the strained impression of an acrobatic feat cannot be called suitable.

Good proportion is the division of a given space into sections that are sufficiently dissimilar in shape not to be monotonous. The given space is, of course, the figure, and the designer's problem is to create within its arbitrary limits a costume that is pleasing in the relative divisions of space. The figure is already

divided in a very pleasing way indeed, but fashion tires every now and then of these natural divisions and attempts to vary the program a little. She may clap a small replica of a Gothic spire on the head, and at the same time raise the waist line up under the arms, thus making the torso instead of the head the smallest part of the body. She may alter things in width instead of height, and add panniers to make the hips look broader than the shoulders, or leg-o'-mutton sleeves to do just the reverse. There are in every fashion the potentialities of good proportion and the proper expression of it will bless even a bustle with beauty.

The clothing of each individual is a separate problem in design and a defective figure can be amazingly improved by judicious juggling of proportion. It is well known that a fat figure suffers from the use of horizontals. Rotundity is better dressed in straight panels and V-necks, which divide the figure in perpendiculars.

The same law of proportion applies to the decoration of a costume. The figure gives some very good natural reasons for decoration; the wrists, the neck, the waist and the hem line are logical places for design. Trimming catches the eye, and therefore it should never appear in an unimportant place, where it will be meaningless. But trimming well located can accentuate the good points of a figure and draw the eye away from the defects.

We are apt to think of period clothes as being the whole field of costume design, but there are at least

two other kinds of costume worn on the stage—modern fashions and gala dress. Modern fashions will have a chapter by themselves. Gala dress is neither period costume nor, strictly speaking, modern fashion. The clothes worn by the choruses of musical plays and revues are typical examples, not to be despised as problems in design because of their connection with an amusing rather than an improving evening. The design more often than not draws its inspiration from a historical source, but the interpretation is strictly in accord with modern notions. A favorite dress for the chorus of a musical comedy is a hoop skirt, obviously enough plagiarized from an earlier day, but with the historic feeling left out. Who, indeed, can remember a muscial comedy chorus that looked anything but ultra modern?

The difference seems to be just this: the historically inspired dress is given some touch of what we of today consider sex allure. In 1860 beauty was considered most enticing, if the neck were completely bare and the dress allowed to slip entirely off the shoulders. But the feet and ankles were not, apparently, of any interest, and were entirely covered up. Nowadays all is reversed. Dress design pays no especial attention to the neck line, fashion decrees no particular decoration to draw attention to the shoulders, and all the notice is focused on the feet and legs. They form our modern idea of sex allure. It is interesting that out of a large collection of gala costumes inspired by the hoop skirt, not one follows historic precedent in these two details. In every case the neck is totally unimportant, often

cut quite high, and the skirt is short enough to show a goodly length of leg.

A large part of the designer's work will, nevertheless, be period costuming in the narrower sense, and he must become proficient in rendering the characteristics of the period he is reproducing. These he will find in the silhouette, for the silhouette is the essence of style.

Silhouette is the outline and mass of a clothed figure, the effect resulting if the figure were painted black —a shadowgraph of shape. It is the distinguishing mark of period, far more than any detail or color, and this is of the greatest importance in the theatre, for the added distance and perspective of the stage make the shape of a dress much more obvious than it would be in an ordinary room.

The history of the silhouette is the best proof that, though in the beginning man was created in the image of God, he has made every effort not to stay that way. And woman also. From the invention of corsets in the sixteenth century down to the days when our mothers had to hold their breath and clutch the bed post while being laced in, woman has been much aided in her attempts to alter nature. Before the corset appeared, her alterations were all additions by extra drapery here and there, but in the 'sixties subtraction reached such a point that one of a young lady's qualifications for beauty was a waist her lover could span with his hands. This is digression, however. The designer takes the silhouette as he finds it, and translates it into his costume.

One of the designer's bugbears is historical accuracy. He is apt to become so involved in what was or what was not worn at a certain period of time that he forgets historical reproduction is not the whole aim. If he can catch the impression of the times, he will do better than by the literal transposing of costumes from some old source book. After all, complete historical accuracy is impossible. The modern touch creeps in, even by the process of selecting from old books and manuscripts. Unconsciously, the modern taste will choose that which is pleasing to the modern eye. If it were possible to reproduce here the pictures of three Juliets of the past three decades, it would be interesting to see how each costume reflected its particular time. A hundred years from now Mr. Barrymore's Hamlet will appear as full of the twentieth century as of the atmosphere of Elsinore.

Nor is this creeping in of modernism necessarily anything to be feared. It simply means the designer has used his discrimination in the ancients, and has refused to adopt anything without style and beauty. After all, there is no reason why he should take aught but the cream of a period for his use, and if the definition of cream varies a little from one generation to another, we can only hope that it is changing for the better. There is, of course, a great deal of venerable precedent for disregarding the time in which a play is laid and doing it strictly in the fashions current at the date of production. And, in fact, a recent revival of Hamlet was played in modern clothes, though it must be said that this was done merely to prove the

eternal modernity of Shakespeare's lines. Fortunately, there is no general tendency to take a playwright other than literally when he dates his play, and we hope there would be small public support for a Lady Macbeth in pajamas.

Good period clothes are not necessarily good stage costumes. A good costume is in entire keeping with the spirit of the play and the personality of the character who wears it. More than this, it makes these things perfectly clear to the spectator, so that his eyes can give every aid to his understanding. It would be hard to find an authentic historical costume that would, without alteration, fit these demands. Far better to create a costume of good period type, which is consonant with the play and the characters.

The ornament of an actual period dress is, moreover, seldom adapted to stage use. The patterns and trimmings are made to be seen near at hand, and a design that is clearly visible across a room will be completely lost in the distance of the stage. Both the historic dress and the decoration, then, must undergo changes to make them fit for stage use, and it will be found far better in the end not to choose a specific period dress and alter it to fit the demands of the stage, but to create a dress of good historical type and ornament it with design that is both characteristic of the period and visible to the audience.

The costume designed with special reference to the stage will be more successful than the imitative reproduction, just as a sketch is more successful than a photograph, and for the same reason. The photo-

graph records every detail, no matter how unimportant or irrelevant. It confuses the mind. A sketch on the other hand is stripped of all the unessentials, nothing is left for the eye to deal with but the main facts, and those are so forcibly put that they cannot be overlooked. The sketch may not be as true in a literal sense as the photograph, but it forces the point far better. This is the reason why cartoons are always drawings.

There is another reason why it is not advisable to rely exclusively on a search through the art of the period for costume material; the typical costume is best designed by drawing upon an understanding of the period itself. Copying pictures is a second-hand way of going about it, like making a phonograph record from another record, instead of from the singer's voice. Of course, you cannot make the costumes without knowing what was fashionable, but you may miss the significance of the period clothes if you do not understand what made the fashions as they were. We all know that the women of the Victorian era were characterized by a prim, demure grace and an utter physical helplessness, and that these things found expression in their dress. But if we did not know this, would we be able to make as apt a characterization of their styles? We might be but dimly aware of these qualities, because they are subtle and elusive, and so they would only appear vaguely and uncertainly in the costume.

This makes it all the more important that the designer carefully analyze the period and its bearing on

dress. And to do this intelligently he must understand why it is that styles develop.

It is often said that fashion is an expression of the desire for novelty, the restless searching after something new. This love of the new no doubt has a great deal to do with the changes of fashion, but surely it is not enough to determine the direction a change shall take. The mere fact that woman tires of her waist line does not explain why she sometimes raises it up under her arms and sometimes drops it down about her knees. What makes her prefer one place to another? It is something intrinsically of the age itself —sometimes economic conditions or politics, sometimes moral standards.

Mr. Veblen points out that the invention of the corset made it possible for women of the leisure classes to demonstrate their exemption from all forms of useful labor, by making themselves obviously unfit for work. Corsets became a class distinction, a badge of wealth and unproductive idleness, the ambition of all those who wished to appear well-off in the eyes of their neighbors. This, no doubt, accounts for their popularity through so many centuries. High heels and enormous skirts and all other fashions that have made women unfit for work have been popular for exactly the same reasons. The dress of woman has always been a good index to the economic standing of her lord and master.

Nowadays, however, it is no longer fashionable to be helpless. Women are beginning to claim an equality with men, which they dare not jeopardize by clothes

that are a serious handicap. Moreover, leisure is now so general that those who can afford to do nothing are no longer a selected few, and there is no point in suffering torture except to demonstrate a difference.

But civilization had progressed a long way before man could afford to let his wife be useless. In the Middle Ages she went clanking about with a bunch of keys at her girdle, and if the castle happened to be besieged while her lord was away, she superintended the pouring of molten lead on the heads of her enemies. Women had to wait till the Renaissance for their leisure, and so did the invention of corsets.

It might be expected that political conditions would influence men's clothes more than women's, but this is hardly true. At the end of the French Revolution, when the people cast about for some reasoned political ideals to replace the most unsatisfactory ones of the past unsettled years, they turned to Greece, the perfect democracy. Promptly Greek design became the fashion, and woman's dress reverted to classic sources for its inspiration. She tied her belt up under her breasts and allowed her skirt to fall free. She even for the time being discarded corsets. She was emulating the political ideals of the day—though with a difference, for there was a coquetry and daintiness about her that was all French; she was adapting, not adopting, Greek styles.

Women are hopeless hero worshipers, and men, perhaps, no less. Their admiration shows itself in the most flattering way possible, by imitation. We have all at one time or another tried to dress like someone

we admired, and when a whole nation takes to doing it a new period in dress is usually born. The newspapers publish a story that the wife of President Cleveland has ordered a dress without a bustle, and bustles disappear; the king takes a fancy for a new style and all the bourgeoisie hasten to copy.

Wars are a great influence on fashion. Man spends a goodly proportion of his time in working clothes. Until surprisingly recent days, his working clothes were as likely as not to be his suit of armor, and he was always changing and adapting this to fit the latest methods of warfare. During the periods when most of his time was spent at war, it was natural that his attention should concentrate on his war clothes and that his other garb should follow it in cut and line. Later, when peace came to be something of an occupation in itself, specially designed peace clothes began to appear. Today peace clothes rule the fashion.

War usually means expeditions into foreign lands and travel is broadening. The whole style of Gothic ornament, it is said, was brought out of Islam by the Crusaders. If you had never gone farther than the next feudal castle forty miles away, you could hardly cross Europe on foot, with a sojourn outside Jerusalem, and remain quite the same man. The village "hick" who has spent a year in town never again dresses quite like the post-office loiterers back home.

Morals affect dress. The Elizabethan age was ruled over by a virgin queen, herself straight-laced and tight-laced to a degree that advertised her virginity to all men, and the unmistakable chastity of her dress was

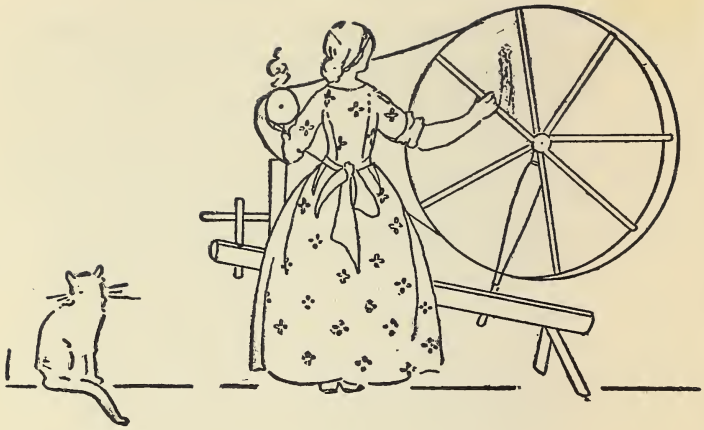
reflected by the women of her day. But times change, and James the First thought not so well of chastity. Woman cut her dress down till it revealed her bare breasts, and slashed her skirt up the front to show her embroidered petticoat. She discarded the forbidding ruff and the extreme lacing of Elizabeth's day; she only retained the wide skirts and looped them back about the waist—but not, we fear, to conceal virginity.

Ideals of sex perfection and allure run hand in hand with moral standards in their influence on clothes. One age prefers its women buxom, another thin as clothes-poles. The Victorians found white shoulders charming, we, a trim pair of ankles.

These are some of the things that make the styles of an age, and it is clear that a knowledge of history will help the designer to make better period clothes. Suppose he is costuming a Gothic lady. He finds in some old carving a little creature with a hat like a church steeple, a gown that is laced across her breasts, and a skirt that is dragged up in a great bunchy loop through her belt in front. Everything about her posture suggests maternity. Knowing his history, he will understand.

This was the great religious age. Europe had been church-building ever since the Crusades, and woman, who could not build spires of stone, built them of cloth and wore them on her head. Her religion centered on the Mother and Child. Maternity was holy. To be like the Madonna was to be perfection. And as maternity was the focus point of her religion, so it was of her political existence. Wars in England and the

Continent for generations past had taken shocking toll of the population, and since there was little prospect of peace in the future, more men would be needed; and man power meant prosperity. No wonder woman prayed to the Virgin for children, and getting off her knees, pulled her dress through her girdle in front and assumed the glorified attitude of maternity.



CHAPTER III

TEXTILES AND TEXTURES

DRAPE DETERMINES STYLE—IMITATING DEPTH AND RICHNESS—SUITABILITY OF TEXTURE—AVOIDING UNFORTUNATE CONTRASTS—CONSIDERATIONS IN BUYING.

If Praxiteles made his statues from the life, he must have given his models a good ducking before he commenced to work, for the drapery of his figures folds and hangs like wet cloth. The effect is so good that it is a pity we cannot immerse an actor now and then, before letting him appear on the stage.

The way material drapes determines the style of costumes. A dress of satin and one of taffeta, both cut from the same pattern, will not look in the least alike because the fabrics hang differently. One is close and clinging, but the other stands away from the

body and gives the dress a certain stiffness and primness. The folds of the satin are sleek and undulating, and the folds of taffeta are sharp and small and broken up in little angles. Imagine the difference between a bouffant skirt made of voile and one of organdie, and it will be seen how much the character of the design depends on the folds of the fabric.

Folds cannot be faked. Texture may be changed in the dye pot, and by a trick muslin may assume the appearance of rich pile velvet, but cloth will always betray its nature in the way it hangs. Cheese cloth can never be made to pass as chiffon because it will not drape in the same way. But fortunately for the budgets of the little theatres, many cheap materials hang sufficiently like expensive ones to serve very well. Muslin will pass as velvet, sateen as damask, and jersey as heavy crêpe, because the shapes of the folds are the same.

The effectiveness of motion depends largely on drapery, and the actress can be much aided in the interpretation of her part by the willingness of the material to conform to the movements of her body. A stately queen can best convey her dignity to the audience if her costume is made of a material that will fall in long heavy folds and sweeping lines. For the play that requires melodramatic action and quickness of pose there is much advantage in a material that conforms quickly to the attitude of the body and adapts itself to gesture and motion.

A florid Spanish melodrama, written in the late lamented 'eighties, was recently revived. The piece is

full of the clap-trap of that doubtful period, and the poor heroine is buffeted about, thrown to her knees, held with a dagger at her throat, and forced to supplicate in breadth of Spanish gesture. She wore a tight bodice and full skirt of cotton print that swayed with her motions like the pendulum of a clock, conformed quickly to each new position, and accentuated by the sweep of cloth the melodrama in the action.

Ruth St. Denis once had in her repertoire a dance that depended for effect on drapery. It was called, if the writer remembers correctly, "Marche Funèbre", and done to the accompaniment of the Dead March in "Saul." The stage was hung with heavy dark curtains, and the figures were shrouded from head to foot in soft purple drapery. The faces and hands and even the lines of the body were invisible, and the effect was gained entirely by the draped cloth swaying to the solemn music.

If the costumer is looking for materials that are not expensive but may be made to assume the appearance of grandeur or grace, he will be sure before he signs the purchase slip that the material will drape the way he desires.

Texture is another quality in cloth which, like drape, affects its uses. Texture is the result of the weave, the variations of the warp and woof that make the surface of the goods smooth and shiny, or dull and lustreless. The difference between satin and rattinet will be discernible at the back of an opera house. The reason is that materials of smooth texture are more susceptible to both light and shadow than rough weaves. A piece

of black satin will show gradations all the way from highlights on the tops of the folds, that are practically white, to the deepest black where the shadows fall. A lusterless material, on the other hand, will be less heavy, the high lights less bright, and the cloth will not be so rich in appearance.

Our mothers' trousseaux contained not nearly as much silk as ours. Cotton is passing. The hand-embroidered petticoats of that day have given place to silk. It is a softer material to wear, it has a prettier finish. The texture is better.

Unfortunately, the sheen of silk can never be imitated. There is no way the writer knows of to give dull cotton a gloss. High lights cannot be painted on with success, for as the folds of the garment move on the figure, the highlights are displaced. Applied shadows are hardly more successful. And the cotton goods with a silk finish, the sateens and mulls, are even on the stage an obvious imitation, unless they are so fine in weave that they rival silk in cost.

Sheen and gloss cannot be applied, but depth and richness of tone can be imitated, howsoever flat and uninteresting the original surface may be. An ordinary muslin that has nothing to recommend it in beauty of texture may take on a very lovely quality through the process of dyeing. If the goods is dipped first in a brilliant dye, such as methylene blue, and then top-dyed unevenly with a dark color—purple, red or green—the material will acquire a new texture. There will be no more sheen than before, but there will be a greater range of values between the lights and

darks. The texture under the stage lights will resemble the rich shadows of a cotton velvet.

The tricks of dye that enrich the texture of a cheap material are a godsend to the costumer who must figure closely on expenses. Cotton materials are better for such treatment, if they are to pass for something costly.

Most women have noticed that clothes which are simple and plain in design and without trimming are always expensive. Cheap dresses are covered with gathers and tucks and all manner of lace and embroidery. The reason, of course, is that the simple dresses are made from expensive material, the texture of which is so fine that it is an ornament in itself, but the cheap dresses need trimming to hide the shortcomings of the cloth. This is just as true on the stage as it is in the specialty shops. If the design of the dress is simple, the texture must be fine, whether it is the actual beauty of rich goods or faked in the dye pots. It is perfectly legitimate to make a seventeenth century brocade gown out of muslin, if the surface of the material is treated to give it an interesting texture.

When the colors of a production are bright, the texture of the fabrics is of less moment. In a little theatre production of "King Lear" the first scene was in gorgeous colors, and though the material used was of the cheapest, the effect was very good. The last act, however, was costumed all in one tone of gray, and the poor quality of the fabrics was, alas, very visible.

Fat women should never wear satin. The texture is not flattering to the figure. Because satin runs the

gamut of values from light to very dark, it accentuates the modelling of the figure underneath. A round arm dressed in satin looks plumper, for every curve is marked with a high light, every crease has a dark shadow. A good figure, on the other hand, is all the better for a satin dress. Suppleness and grace of line are revealed by the material. No wonder the traditional vampire wears satin.

No doubt this is why brides also wear satin. White is traditional, but it is apt to be uninteresting and flat. There is no more beautiful white than satin, which ranges from the brilliance of crystal on the highlights to rich, warm creams in the folds. Moreover, there is something about the long, graceful folds of satin and the way it follows the rhythm of motion which seems to give it an affinity with "Lohengrin."

The texture of fabric must be suitable not alone to the figure, but to the occupation of the wearer. We never wear tweed in the evening because it is not suited to the things that we do at that time; nor do we wear chiffon for gardening or walking in the rain.

Selecting the materials for a group of costumes requires some care and thought. Where the budget must be watched, it is a temptation to dress two or three of the important characters in fine materials and clothe the rest in cotton. Usually there is not the slightest justification for this in the play and the effect is always bad. The purpose of giving these characters prominence is certainly accomplished, but at the expense of all the other costumes on the stage. Of course, if all the kings and nobles wear silk and all the

peasants cotton, there is nothing to complain of, but if the King, the Queen and Hamlet are in silk, with Laertes and Polonius in dyed muslin, logic has flown out of the window. And the curious thing is that the fraud of muslin is obvious the minute it associates with the real.

Another advantage of treating cheap material with dye is that it makes the nature of the goods no longer obvious. Muslin dyed is not patently muslin; at least, it does not proclaim itself so emphatically. It becomes just material, interesting in color and design, and if a whole production is done consistently in this manner, with no rich material to set a contrast, the eye will not concern itself with the nature of the fabric.

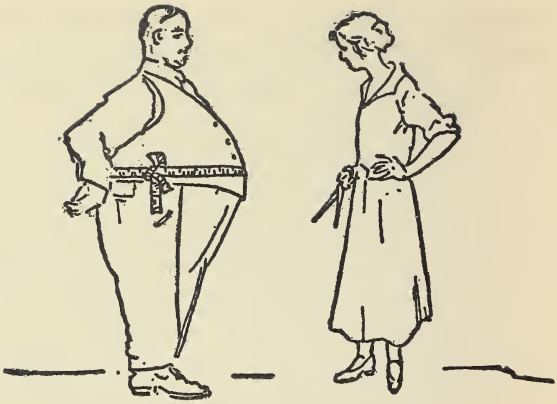
The people who handle material in the workshops would add a footnote to these paragraphs to the effect that there is more in selecting goods than the mere æsthetic consideration of appearance on the stage. There is a vast difference in the workability of fabrics, and though the general rule must be, buy the goods that look best and let the sewing room suffer, there are occasions when the practical advantages of material must be considered.

Once, two hundred and fifty yards of material had to be dyed by the dipping process, and someone who knew no better bought heavy muslin full of dressing. The dye ran off the goods like water off a roof. No amount of soaking, squeezing or rubbing would make the dye take hold in a satisfactory manner. Finally, the entire piece had to be washed in hot water by a very weary staff.

Almost anything else will take dye better than muslin. Sateen, cotton crêpe, voile, cheesecloth, nainsook and any other material that is not treated with a dressing will dye easily.

If the dye is to be applied with a brush, however, muslin is an ideal material to use, for the same quality that prevents the dye from taking hold, when it is dipped, will prevent it from running beyond the limits of the design when applied with a brush. But the painting of figures on a soft material like nainsook is not such an easy matter. The dye will spread in all directions and will require skill and care to handle. There will be a variation even between different grades of the same material. The only safe way is to experiment before buying. Remember, too, the sorrows of cutting and working intractable material, and do not buy heavy canvas unless you are equipped with power machines to sew it.

There is a responsibility on the person who goes shopping, for the character of costume will depend on the material from which it is made. The fabric should fold and hang in a way that will bring out the greatest beauty in the design, and the texture of the material should be suited to the style of dress and to the figure. Also, the costumes must be considered as a whole, that they may present a pleasing combination of fabrics. We must appreciate materials to use them well. We must recognize the special qualities and merits of each variety, the long sweeping folds of brocade, the dignity of velvet, the crispness of organdie, and how each can be turned into style and beauty in a costume.



CHAPTER IV

PATTERNS FROM MEASURES

THE IDEAL AND THE AVERAGE—MEASURING THE INDIVIDUAL—STANDARD MEASURES—STANDARD PATTERNS, LOOSE-FITTING AND TIGHT-FITTING—ALTERING TO MEASURE.

For many years patterns were based on the proportions of the ideal figure; masculine proportions were taken from the Apollo Belvedere, feminine from the famous Venus de Milo. Then someone discovered that the proportions of the average man but little resembled those of a Greek god, and pointed out the error of making patterns that would fit but few. And our modern taste has come to prefer the proportions with which we ourselves are endowed. We are like Mrs. Wiggins, who on leaving the Vatican was heard to say that she had seen Apollo and she had seen Wiggins, and she preferred Wiggins.

PATTERNS FROM MEASURES

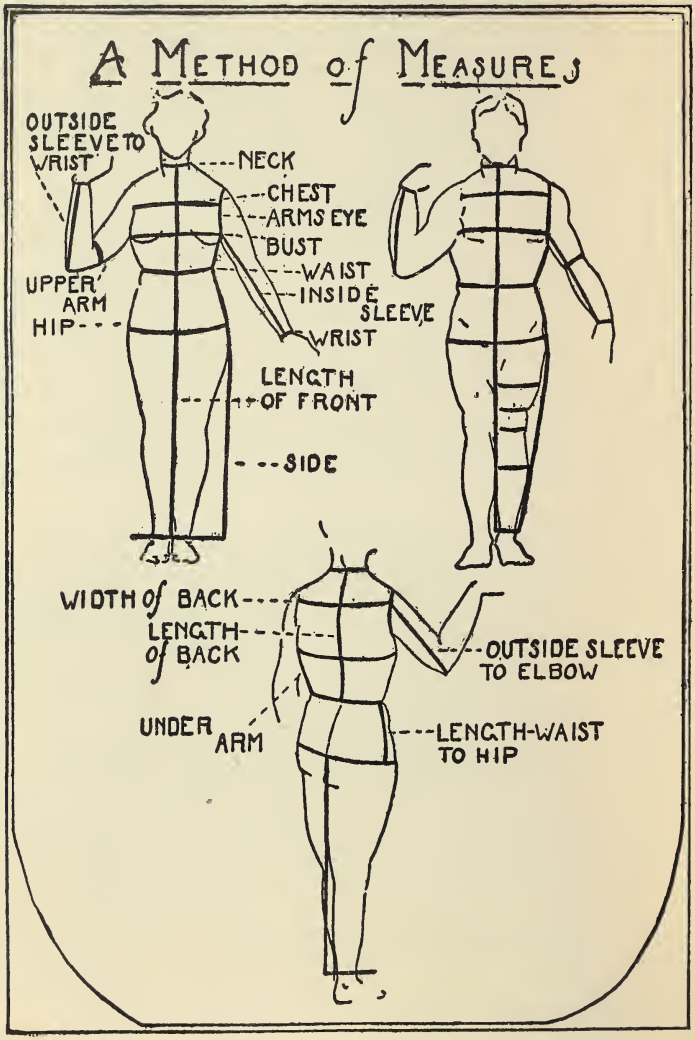
Patterns for standard sizes today are made by averaging the measures of many figures, and using the bust measure as the determining factor. It has been found, for example, that the majority of women who have a thirty-six inch bust measure have a certain average waist measure, hip measure and so on.

But the individual seldom resembles the average in every particular. According to the average measures, a person with a thirty-six bust will have a twenty-five inch waist, but the actual individual with that bust measure may be twenty-seven or twenty-three inches around the waist. For this reason, the bust measure cannot be depended on alone, and careful measures of the individual must always be made before taking up the shears.

The measures must be accurate. Start by tying a tape around the waist at the narrowest part to determine the exact waist line and to prevent the measures taken to the waist from being either too long or too short. The diagram, "A Method of Measures," shows where the measures are taken.

MEASURES FOR THE "STANDARD THIRTY-SIX" ARE AS FOLLOWS:

Neck	13
Shoulder	4½
Width of Chest	14
Width of Back	13½
Bust	36
Waist	25
Length of Front from Neck to Waist	16
Length of Back from Neck to Waist	16
Armscye	15
Under-Arm to Waist	10
Hip	40
Front from Waist to Hip	7½
Side from Waist to Hip	8


A METHOD of MEASURES
OUTSIDE SLEEVE TO WRIST
NECK
CHEST
ARMS EYE
BUST
WAIST
INSIDE SLEEVE
WRIST
UPPER ARM
HIP
LENGTH OF FRONT
SIDE
WIDTH of BACK
LENGTH of BACK
OUTSIDE SLEEVE TO ELBOW
UNDER ARM
LENGTH-WAIST TO HIP

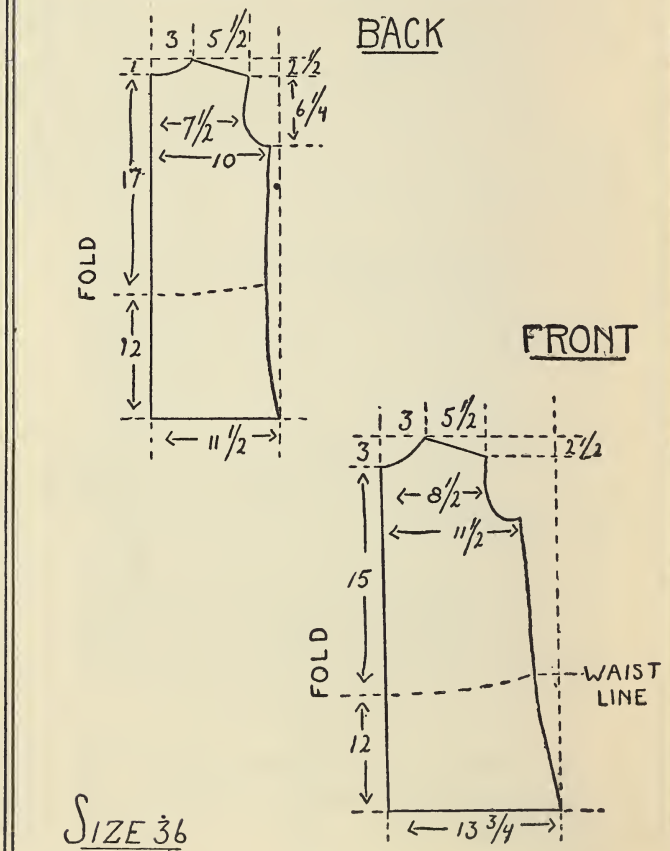
Back from Waist to Hip	8½
Length of Skirt—Front	40
Length of Skirt—Side	41
Length of Skirt—Back	41
Outside Arm from Shoulder to Elbow	13
Outside Arm, Elbow to Wrist	10
Inside Arm	19
Arm above Elbow—Around	11½
Wrist	6½

MEASURES FOR A MAN OF SIZE FORTY-TWO, OR "MEDIUM," ARE AS FOLLOWS:

Neck	15½
Shoulder	5¾
Width of Chest	15½
Width of Back	17
Breast	42
Waist	32
Front from Neck to Waist	16½
Back from Neck to Waist	18½
Armscye	16
Under-Arm to Waist	11½
Hip	39
Front from Waist to Hip	8½
Side from Waist to Hip	9
Back from Waist to Hip	9
Length from Waist to Ankle in Front	37½
Length from Waist to Ankle at Side	38
Length from Waist to Ankle in Back	38½
Upper Leg, Around	21
Just above Knee	15
Around Calf	14
Ankle	9½
Outside Arm from Shoulder to Elbow	12
Outside Arm from Elbow to Wrist	11½
Inside Arm	21½
Arm above Elbow—Around	11
Wrist	7

There are just two types of garments for men and for women, tight-fitting and loose-fitting. All the periods of historic dress are based on one or the other. Clothes have always either fitted the body closely or hung away in loose folds, or, in their different parts, combined the two. Tight bodies have had loose

Woman's Loose Waist



sleeves, or the other way about; but the fundamental cutting lines for clothes of either type have always remained practically unchanged. With a standard pattern of either type as a basis, any costume of that type can be made. For this reason it is unnecessary to go into the confusions and complications of pattern drafting. Instead, standard patterns of each type, for men and for women, are printed, and directions are given for altering these standard patterns to fit the fashion and the individual figure.

The standard patterns should be cut out of light cardboard, labeled, and kept in a handy place. Tailoring establishments usually hang them on hooks in the wall, back of the cutting table.

When the standard patterns correspond closely to the measures of the individual, they may be used as the final cutting guide, but if the individual's measures are very different, it is far safer to cut a special pattern out of paper, using the standard pattern for a point of departure.

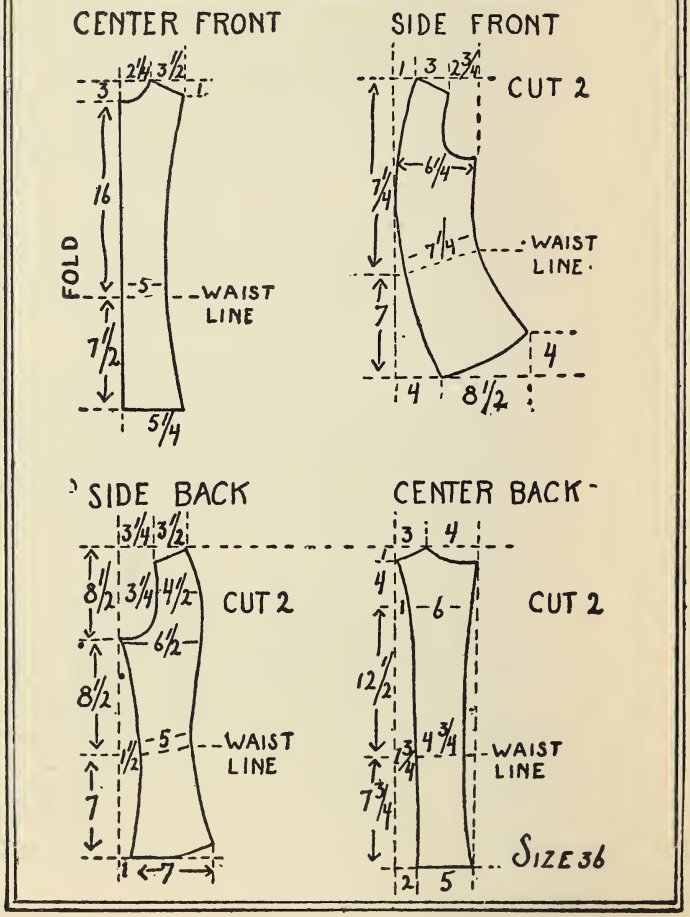
Directions for Altering Standard Patterns

Length and width can be added to, or taken away from, both the tight and the loose fitting patterns, but altering the tight-fitting patterns is slightly more complicated, owing to the greater number of pieces.

The first step is always to compare the individual's measures with the standard measures to determine where the changes must be made.

Waist Pattern. To add width in the waist pattern, when the front measure, bust measure and waist meas-

Woman's Fitted Waist

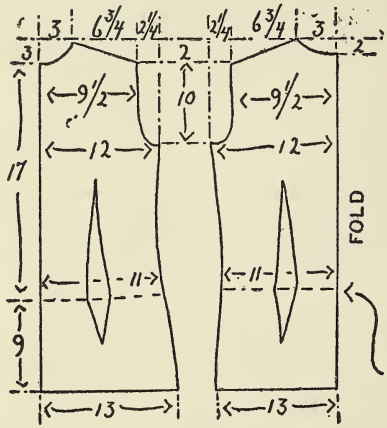


ure are all too small, slit the pattern in a straight line from the center of the shoulder to the waist line in both the front and the back pieces, and add the desired fullness in the slit. Take out surplus width by making a tuck in the pattern along these same lines. Never take out or add width in the center front or center back of a waist pattern, for in doing so the neck line is damaged.

Chest and Back. To increase the chest or back measure when the bust measure is correct, it is usually sufficient to alter the line of the armscye at the point where the chest measure is taken,—by adding the necessary width. Extra width is taken out at the same place.

Bust Measure. To increase the bust measure, add the necessary width at the bust line, to both the front and back pieces of the pattern, one-half to each. If, however, the bust is abnormally large, it will tend to make the waist too short in front, and another method of increasing the measure must be used. If the pattern is for a tight-fitting garment, make a slit along the bust line from the center front across the center front piece and a corresponding slit in the side front pieces almost to the armscye. Add the extra length in these slits. In the case of the loose-fitting pattern, the abnormally full bust may be allowed for by dropping the whole front section the necessary amount at the shoulder, and cutting the shoulder correspondingly higher. Height must also be added to the underarm, to make it correspond to the back, and the bottom edge of the waist must be sloped to the back at each side.

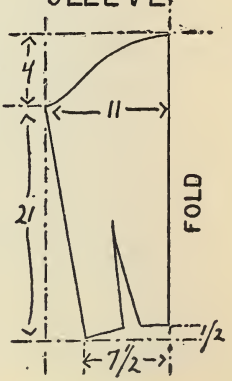
Man's Waists, Fitted and Loose



THE LOOSE WAIST
IS MADE WITHOUT DARTS.

THE FITTED WAIST
IS MADE BY TAKING IN THE LOOSE WAIST WHERE DARTS ARE INDICATED, WITH ADDITIONAL DARTS FROM THE SHOULDER DOWNWARD IF NECESSARY.

SLEEVE.



THE LOOSE SLEEVE
IS MADE WITHOUT DARTS

THE FITTED SLEEVE
IS MADE BY TAKING ONE DART AT THE UNDER SIDE OF EACH SLEEVE.

Size 38

Waist Line. To add width to the waist line in the tight-fitting pattern, make the necessary adjustments in the gores; in the loose-fitting pattern, add width evenly to both the front and back pieces.

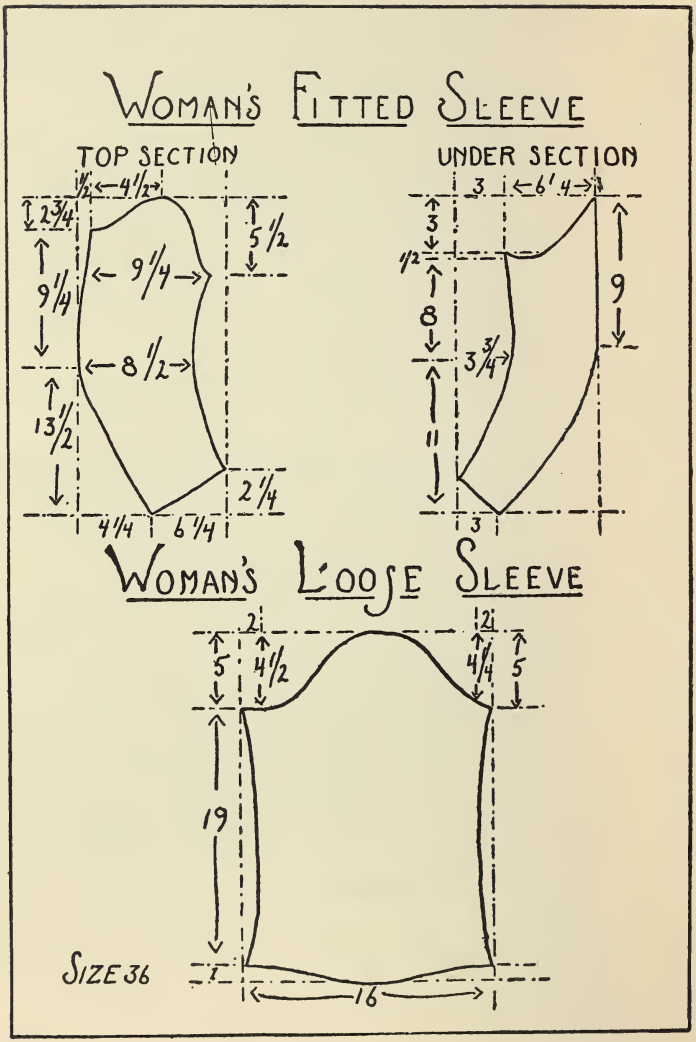
Front and Back. To add length to front or back of either type of pattern, first determine by measurement whether the added length must be between the shoulder and the underarm, or the underarm and the waist; then add the necessary length by making a slash. Unnecessary length is taken out by making a tuck in the pattern at the same place.

Neck Line. To make the neck line smaller, cut a smaller curve.

Armscye. To make the armscye smaller, add height under the arm, slightly more on the front piece of the pattern than on the back. If the armscye is too small, it can be cut out during the fitting.

Shoulder. To lengthen the shoulder, add material at the armscye end of the shoulder line; take out unnecessary length at the same place.

Sleeves. To add fullness to the loose sleeve, slash the pattern from the highest point of the curve at the top, in a straight line, to the bottom, and add the necessary fullness in the slash. Adjust the curves at both top and bottom of the sleeve by making them slightly higher. Unnecessary fullness may be taken out by making a tuck in the sleeve along this same line and flattening the curves at top and bottom to correspond. The tight-fitting sleeve is altered in the same way, the adjustments being made, of course, in the top section.


WOMAN'S FITTED SLEEVE
TOP SECTION
UNDER SECTION
WOMAN'S LOOSE SLEEVE
SIZE 36

To make the sleeve longer, determine by measurement whether the additional length should be above or below the elbow, and slash the pattern horizontally where the length is needed, adding the extra length in the slash. Length is taken out by making tucks along the same line. Loose-fitting and tight-fitting sleeves are both altered in the same way, the two pieces of the tight-fitting sleeve, of course, being altered equally.

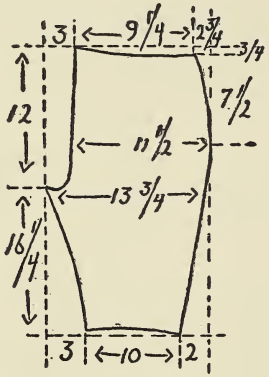
Knickerbockers. To add width to the knickerbockers, cut both front and back pieces wider at the side seams. Take away unnecessary fullness by cutting down on the same seams.

To add length to the knickerbockers, first determine by measurement whether the extra length is needed above the wide part of the hip or below, and add it by slashing the pattern horizontally and putting in the extra material in the slash. Unnecessary length can be taken out by making a pleat in the pattern along these lines.

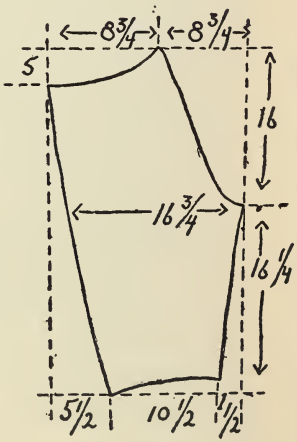
Skirt. To lengthen the standard skirt without altering the width of the bottom, make a horizontal slash in the pattern several inches below the hip line and add the desired length. Excess length may be taken out by making a tuck in the pattern at the same place.

To take out excess fullness in the waist line and fit the skirt, make darts running from the waist line towards the hip line as far as is necessary to make the material fit snugly over the hips. Much of the appearance of the skirt depends on the judicious placing of these darts, but as individuals vary greatly, it is

Man's Breeches



FRONT
CUT 2



BACK
CUT 2

SIZE 38

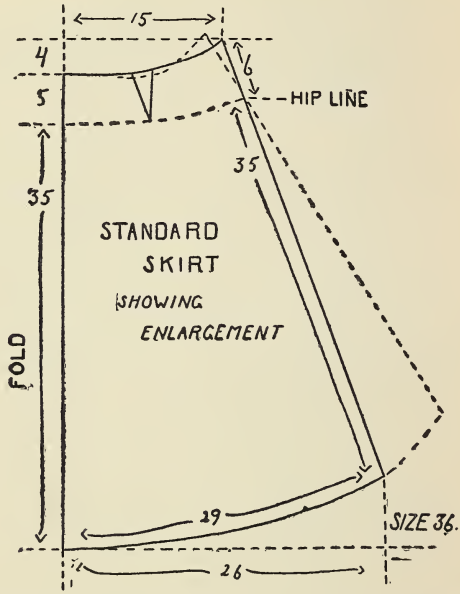
not possible to give absolute rules. The darts may be placed anywhere from the side front to the center back, and in general the side darts should fall just back of the hip-bone. The number and location of the darts in a gored skirt will, of course, depend on the number and location of the gores.

To increase the waist measure when the hip measure is right, it is sufficient to let out a little, evenly, at all the darts. This can be done in fitting.

Skirts are seldom much narrower around the bottom than the standard pattern, but slight excess fullness may be taken out without altering the hip or waist lines, by taking a dart at the side, starting at the hem and sloping away to nothing at the hip line.

The diagram, "Standard Skirt," shows the method for increasing the width of the standard skirt at the bottom, without altering the hip and waist measurements. Place the tapemeasure at the intersection of the hip line and the back line, and carry it downward toward the hem, swinging it out until the desired fullness is acquired. Along the line of the tapemeasure, draw a straight line of indeterminate length. Continue this line upward from the hip line to the original waist line, following the new slant. This will cut down the old waist line somewhat. Continue the new line through the old waist line and just as far beyond as the amount the old waist line has been cut down. Construct a new waist line curve from this point, equalling in length the measurement of the old waist line. The new waist line will have a deeper curve. The curve at the bottom of the skirt must now be deter-

mined. Measure from the back point of the new waist line downward along the new back line the desired length of the skirt at the back, and reconstruct the curve of the bottom line to meet this point. As much fullness as desired may be added in this way.



Sometimes it is desirable to cut the skirt in sections, or gores. The number of gores is first determined,—five, six or seven, as the case may be,—and the pattern is then divided into the corresponding number of sections. In making this division the center front is always placed on a fold of the goods, for a skirt must never be seamed directly up the front. The gore divisions are straight lines radiating from the waist to the hem. The pattern is cut apart along these gore

lines and the material cut accordingly. The edges of the gore pieces which lie toward the front of the skirt are put on the straight of the goods in cutting. As a result, the edges lying toward the back of the skirt are somewhat on the bias, and it is along these bias edges that adjustments may be made by adding or taking out fullness.

Make sure that the seam allowances have been made before cutting into the material. These allowances are generally one inch, except at collar and cuff joinings, bound edges, and the smaller parts of the garment.

The direction of the pattern in relation to the selvage is always important because of the effect that the straight or the bias of the goods has on the fit of the garment. The pieces of the patterns should be laid out as they are in the accompanying drawings, in the same relation to the straight of the goods as the drawn patterns have to the perpendicular dotted lines.

The last step in the process of cutting is the marking of the cut-out materials for the guidance of those who do the sewing. There must be notations on the material to show which seams meet and where darts are to be taken. A common practice is to mark the seam-joinings by cutting little notches in the cloth, but this is unwise, for the scissors may slip or the extra material be needed in fitting. Nor is tailor's chalk satisfactory, for it is too likely to rub off. Markings should be made with basting thread, or the parts of the dress should be pinned together along the lines that are to be sewed. The indications for the workers should always be clear and distinct, to save time and avoid confusion.



CHAPTER V

SCISSORS AND SENSE

STUDYING THE SKETCH—IMPORTANCE OF STYLE—PLANNING THE WORK—THE CUTTER'S EQUIPMENT—PROVIDING FOR DYEING—SHRINKAGE—REMODELING THE FIGURE—SILHOUETTE.

CUTTING is an art, and the cutter's knowledge is more than a familiarity with shears and pins and patterns, for hers is the responsibility of turning the sketch on paper into a reality, of interpreting the artist's idea with her scissors.

First of all, the cutter must understand the artist's intention. Perhaps this is not so easy as it might seem, for many sketches, though lovely as works of art, are inconclusive and indefinite from the cutter's point of view. But if, besides her knowledge of dressmaking, she possess an instinctive appreciation of good form and beauty of mass and line, she will be equipped to interpret any sketch, however vague.

The indications on the sketch for cutting are likely to be slight, if any. The shape of the pattern and the amount of material used are left to the cutter. The sketch will tell her the outline and mass, and the details about the waist line, neck line, and so forth, and most important of all, it will tell her the style. Style is more than type and historic period, it is more than *chic* and dash. It is the underlying quality that gives a costume character and difference, the breath of life that makes the costume not alone artistically, but truly and fundamentally, right for the play and the character. It is the quality of rightness and individuality and art that distinguishes a costume from a mere piece of clothing.

In the finished costume, style lives and has its being in the hang and drape of the dress. It depends for its existence on the cut, and the cutter must be capable of sizing up this quality in the sketch and transmitting it unaltered to the cloth.

This is not always easy. Perhaps, the artist has drawn an Elizabethan lady with a preposterously little waist, even for those tight-laced times, and a ruff that exceeds all the bounds of historic probability. The cutter must not say there never was such a ruff, and no woman could draw the breath of life in such a stomacher. She must not modify the sketch according to her own ideas of proportion, for it is in just these very exaggerations that the whole essence, the whole style, may lie. Any change might sweep away the individuality and modify the style out of existence. She must first assure herself that the exaggeration was in-

tentional, and not merely the anatomic vagary of uncertain art, and then use her ingenuity to cut the colossal ruff, and if necessary, devise a padding for the rest of the figure, to make the waist look diminutive by contrast.

Ideally, the cutter ought to take the sketch quite literally, exaggerations and all, and cut accordingly. In practice this is the only possible assumption to follow, unless there is a very strong suspicion that the artist has been guilty of adding touches merely for the beauty of the sketch as a picture. If the artist is sincere and means what he appears to mean on his drawing, then his conception is inviolable and should be followed with scrupulous care. It is this thoughtful attention to the sketch and the sympathetic and cooperative regard for his purpose that the designer relies on to achieve his effect.

All this implies a good deal of sound judgment and sense in the cutting room, though it is hardly fair to rest the whole burden of the responsibility there. Many questions of detail are almost sure to arise, and these can best be settled by an occasional conference with the designer. It almost goes without saying that the artist who is anxious to see the best possible results for his work will follow the costume through its many stages from the first snip of the shears to the last stitch.

Oddly enough, in the actual work of cutting, the real problem is not the difficulty of getting the work done right,—it is the comparatively simple matter of getting it done on time. Shortness of time seems to be a chronic ailment in all theaters, from the smallest

amateur group to the professional stage. It is too true that the curtain almost goes up on the last scene painter, and many an actor has played the first night in safety pins. The cutter begins her work when the production is still well in the future. There seems ample time. It is always hard to hurry at the beginning of a piece of work, but the sewing and dyeing take more time than has been allowed, unexpected work turns up, and at the last minute all is hurry and confusion.

When a play involves only a few costumes, the work is simple enough, but if it requires fifty or so, every device for speed and efficiency must be used. The cutter must be an efficiency expert. Dyers must be supplied with work, and sewing machines must be kept going. All this depends on her energy and skillful planning. A cutter ought to include in her working equipment eyes in the back of her head and four pairs of hands.

A certain statistician defines efficiency as the art of doing a thing right the first time. By that he means that remedying a mistake takes longer than the thinking process necessary to avoid it. Most of us are not much given to abstract thought about anything, and especially when time is pressing, it is a temptation to begin work at once without waiting to make plans. But a cutter who scorns to plan her work is like a general who enters battle with all the zeal in the world, but without taking time to find out how many troops he has or how big a force he is to fight.

Usually it will be wise to cut the simplest costumes

first, so that the sewers and dyers will have an abundance of work, while the cutter takes time over the intricate patterns. If there are any duplicate costumes, they can be cut out in one operation by making the cloth double or treble in thickness. The whole problem demands a knack for cutting corners and an ability to put things through.

The cutter's equipment is, fortunately, very simple. Scissors, of course, head the list. It is just as well to get good ones to begin with, for the wear and tear of cutting will soon take the edge off anything but the best steel. The length of the scissors is largely a matter of personal preference, but for the usual type of cutting three sizes, nine inches, six inches and four inches, will be quite adequate. The large size will be used for heavy cloth, the small size for cutting around armholes and so forth, and the medium size for all ordinary work.

The next item will be pins. No. 2 is a good size, and they should be bought by the box, for they are much easier to pick up when they are loose than when fastened through a paper. This is a simple thing, but all the small items add up to a great deal in the hurry and rush of a big production. Some people like to carry a pincushion in addition to the box of pins, to be used at fittings. A large powder puff, pinned to the front of the apron, serves this purpose well, for it is not heavy and takes the pins easily. Some wear their pincushions bracelet-fashion on the left wrist.

Next comes a tape measure. The kind that can be hung around the neck between uses is the best, as reel

measures are always getting snarled up and stuck. Another great help in measuring is to have the edge of the table marked off into inches.

Some kind of marker will be needed. There is, of course, the old fashioned tailor's chalk, which comes in a variety of colors and is very good for marking material that does not have to retain the marks through the dyeing process. Chalk rubs off quickly, but artist's charcoal—in the weight called medium—will remain visible through a good deal of dye. In using the charcoal, wrap a piece of tinfoil around the end of the stick to keep it from soiling the fingers. In addition to the chalk and charcoal there are several good mechanical devices for marking.

Perhaps the one thing that can contribute to the discomfort of the cutter more than any other is a work table of the wrong size and height. The work of cutting is long and fatiguing, back-breaking if it requires much stooping over a table that is too low, or reaching across one that is too wide. Thirty-one inches is a good table height for the average person, and forty-six inches a standard width. This allows for cutting forty-inch material, the width most commonly used in costuming, and leaves a little margin around the edge to put things down on. In length the table should be limited only by the space available. Professional establishments usually have a cutting table that runs the entire length of a long room, so that the whole pattern can be laid out at once. It is decidedly uncomfortable to work in so short a space that the bolt you are cutting from constantly slides off onto

the floor, or part of the dress hangs off the edge of the table.

After studying the sketch, the cutter's first step is to take measurements and make patterns for the costumes she is to cut. Methods of doing this are detailed in the preceding chapter.

Before the cutter is ready to lay out the costume in the form of a pattern, she must know whether the material she uses is to be dyed, and by what process. If the material is to be bought already colored, the problem is settled, but in practice this is seldom advisable. If the material is to be dyed, there are several things to consider. A flat color that is the same throughout the costume, with no designs and shadings to complicate the dyer's work, is applied by dipping the cloth evenly into a dye bath or spraying it with a pump sprayer. This can be done better before cutting than afterwards. Material that has been cut is in danger of being pulled and twisted out of shape by the rough handling inevitable in dip-dyeing. The energetic squeezing and rubbing that is necessary to make the dye take hold will ravel out the edges of the cloth, and efface any pattern markings, no matter how black they may be, or worse, smudge them through the cloth in dirty streaks. In spray-dyeing, of course, there are no such difficulties, but since the cloth must be stretched flat to be sprayed, it is easier to handle before spraying than after.

In having dyeing done before cutting, it is well to estimate the amount of material that will be needed, cut it off from the bolt, label it plainly with a piece of

paper pinned on, containing the name of the costume and any necessary working notes, and send the sketch with it to the dyeing room. If the cutter has not allowed herself enough material in the first place, and the particular mixture of dye has happened to run out, there may be reason to regret her carelessness. Dye colors are hard to match, even for experts, and a good dyer is like a good cook who puts in his soup a pinch of this and a pinch of that, and never can tell you afterwards just how much of any ingredient has been used. The dyer may not know himself how he produced a given shade, and it may cause him considerable trouble and waste of time to make the right color for the half yard or so the cutter has forgotten.

If the sketch calls for dyed designs or shadings that have a special relation to the structure of the garment, such as a decorated hem, cuff, or neck line, then the cloth should be cut out or the pattern marked on it before turning it over to the dyer. Here the technical process of dyeing is different. The dyer cannot immerse the whole piece in the dye, for the parts of the costume where the design is to go will have to be dyed with different colors. Instead, he will stretch the cloth on a frame and paint it in much the same way he would paint a canvas.

Perhaps, he will prefer to have the pattern cut out before he starts to work, or perhaps he will want all the pieces of the pattern marked out on the cloth with charcoal. In any case he will need a guide and indication. When the dye is put on with a brush, the charcoal marks will not blur and smudge the cloth,

but they will show through a light dye in a permanent and ineffaceable way. For this reason any directions should be written on the margin beside the pieces of the pattern.

These directions must be complete and explicit. It is not fair to expect the dyer to take time to decipher the intricacies of a pattern, and sometimes it is hopeless. Women have a sixth sense about such things, but if a man rules the dyeing room, tell him a sleeve is a sleeve, and don't stop there. Tell him which is the top and which is the bottom. Write in the margin beside the piece indicated. It is worth the trouble to save the mistake.

If the dyer prefers to work with the cut pieces, a margin about an inch and a half wide should be left around every piece, to be used in fastening the goods to the dyeing frame, and the width of the margin should be indicated so that the dyer may judge the space for his designs correctly.

From all this it will be seen that it is just as well for the cutting room and the dyeing room to be on good terms and in constant touch with each other. It is a great help if the dyers can know right at the outset what proportion of dip-dyeing and what proportion of pattern-dyeing there will be. Work should be planned so that all the materials of any one shade used in a production can be dyed at the same time. It never seems to work out absolutely that way, for something is always turning up, or, in spite of every precaution, something is forgotten, but the ideal is good. A production is such a complicated undertaking that

everything making for efficiency and system should be adopted. The various departments in costuming are like the parts of a large machine whose speed can be greatly accelerated by their accurate and coöperative functioning.

Everyone who has ever sent a dress to the dyer's knows from experience that materials shrink amazingly. This shrinkage is the tightening of the weave, with the result that many materials are appreciably thicker after dyeing or washing than before, but the real difference lies in the way they shorten up. Many and many a time unnecessary work has been caused and valuable hours lost because somebody forgot that muslin shrank. The writer has seen a group of worthy burghers on a little-theater stage, looking like so many over-grown school boys in last year's clothes, because someone was thoughtless enough to have the costumes made up and fitted before they were dyed. Unless shrinkage is allowed for when the garment is cut, it may be hopelessly ruined when it comes back from the dye room.

MATERIALS CAN BE COUNTED ON TO SHRINK SUBSTANTIALLY AS FOLLOWS:

Material	*Inches Per Yard*
Muslin, thin	1
Muslin, heavy	½
Sateen	½
Nainsook	¾
Mull	¾
Voile	1¾
Cheesecloth	¾
Cotton flannel	1
Mop cloth	4½
Burlap	½
Georgette	2
Chiffon	3¾
Crêpe de Chine	2

Stage materials of cotton are almost always better left rough dry, for the hundred little wrinkles in the cloth give it a richer appearance under the light, like silks and velvets of the finest. It is never well to cut rough dry material without pressing it, however. It can be sprinkled afterwards if necessary, but careful and accurate cutting can only be done on material that will lie smooth and flat. In all light-weight cottons the wrinkling takes nothing appreciable from the length, but in the heavier muslins it counts for slightly under an inch a yard. Material that has been left stretched taut on the dyeing frame, until it is dry, shrinks less than half as much as material that has not been stretched while drying, and, of course, is also perfectly smooth.

There are always a great many details to cram the cutter's head, but before the pattern is made, a few more must be added. She should make a careful study of the actor who is to wear the costume—the individual himself, if possible, since it is hard for even the most experienced eye to reconstruct the figure in imagination from the measures on a card. There will be many things to keep in mind, small defects in the figure that must be remedied by the cut of the costume, as well as the general adaptability of the figure to the type illustrated in the drawing. Perhaps, she will find herself confronted with the problem of converting a short, dumpy actor into a tall and lithe Prince Charming. It happens sometimes, for the artist does not always know for whom his costumes are designed, but if the sketch portrays him tall and lithe, then tall and lithe



Ruth Page in a Dance of a Marionette.

he must be, or as nearly so as the cutter's art can make him. It will take some thought and ingenuity to effect the change. Even though the defects are only minor—big wrists or clumsy hands,—the cutter must recognize them as defects, and study to efface them in any way compatible with the inviolability of the sketch.

There are many little tricks the cutter can employ. Suppose your actor is deficient in the matter of shoulder breadth. If the discrepancy is small, the shoulder seam can be lengthened a little between the shoulder and the neck, and the sleeve cut a trifle wide at the top, or even gathered into the arm hole. This will help to give the illusion of broad shoulders. Inversely, shortening the shoulder seam and tightening the sleeve will tend to produce the opposite effect. Big arms that must wear long sleeves look smaller if the sleeve is a little loose, than if it is cut skin tight; and large hands are helped if the cuff drops slightly over the hand and the wrist is not too tight. It is a matter of common knowledge that stripes increase the height of a figure, and it is also true that a horizontal line makes the figure broad, even in details. A bateau neck line that extends well out on the shoulders makes them appear much broader than a shorter line.

This immediately raises the question of what the perfect figure is. Probably the answer is that there is no such thing as a standard of beauty for the human form. The Venus de Milo comes at once to mind as being the most beautiful combination of proportions yet produced by man, and yet a girl of today whose

figure verged on such rounded fullness would take to a diet of pickles at once. The fact is that there is a fashion in figures in the same sense that there is a fashion in dress. It has varied from age to age and from nation to nation. Women of the Renaissance sought to be high busted and used all the artifices of dressmaking to produce the effect, but the modern girl flattens her busts out of existence to create her ideal of a boyish figure. The Frenchman tailors his coats in at the waist to show the line of his hips, and across the Channel one would never guess that men had hips at all.

To the eye of the artist, the figure of the Venus, with her high waist, her little head and high chest, may be the ultimate of human beauty, but the fact remains that the women of other ages have seldom tried to emulate her classic proportions.

Making over a figure sounds like a much more difficult task than in reality it proves to be. No doubt, if the truth were known, the girth of every Falstaff would prove to be but cotton wadding, judiciously applied. A muslin foundation comes first, cut snug to fit the figure, extending as high around the neck as the line of the costume will permit, and far enough below the curve of the hips to prevent slipping. Cotton wadding is applied to this foundation wherever increased girth is needed, and fastened in place with long loose stitches back and forth. Wadding is superior to sheeting for this particular kind of work. When the effect is satisfactory, the cotton must be covered with a thin material, cheesecloth or lawn, to keep it from rubbing off and losing the shape.

False figures are apt to look distressingly artificial. This is usually because the padding has been thoughtlessly applied. The trouble with the good, old church play method of putting a pillow under the old woman's apron to give her girth, is in the proportion. A fat torso usually implies fat arms as well, and padding that is convincing must be anatomically reasonable.

Outline and grace and beauty of the silhouette count far more on the stage than any amount of detail. Imagine Pavlowa dancing in a clumsy costume! It might not spoil her flawless technique, but it would surely go far towards ruining the effect.

It is sometimes well to think of the costume as a shadowgraph, to go over the outline with the mind's eye and make sure that all the style and character and grace possible are expressed in the cut of the skirt, the line of the bodice, and the flow of the sleeves. There must be no bunchiness anywhere. Trailing sleeves must not confuse themselves with the dress. There must be no lopsidedness due to careless cutting. The costume becomes part of the personality of the actor. By its aid he projects his character across the footlights; he relies on it to carry out his meaning. It would tax the art of any actress to play Portia in a gown that made her look like a stodgy judge, and she would probably feel like calling down anything but mercy on the costume department that turned out such ungainly clothes.

The dancer is more dependent than any other on the silhouette of the costume. A few years ago, M. Bohm included in his program a dance called "The

White Peacock" by a young dancer of exceeding grace and ability. She was clothed marvelously in a short tunic of feathers, and a tail many times the length of the dancer herself, which was raised and lowered at her will by means of little cords attached to her waist. In the thousand attitudes of the dance with the tremendous tail spread above her head or trailing far behind her on the ground, there was not a single ugly outline, not a single moment when the silhouette was meaningless or confused. A superb triumph for designer and makers alike!



CHAPTER VI

DIFFERENT METHODS OF DYEING

STANDARD DYES AND THEIR USES—DYE MIXTURES—DIP-DYEING—SPRAYING, AND PAINTING WITH DYE—CHOICE OF METHOD AND EQUIPMENT—DYEING TO IMITATE FINE FABRICS—FLECKING—SPRAYING—TOP-DYEING—HIGH-LIGHTING—SHADOWING.

It is no paradox to say that dyeing is the life of costume. The visual success of the production largely depends on the man in charge of the dyeing room,—one assumes the dyeing under masculine direction, for no better reason than that men seem to have less aversion to dye under the finger-nails than women. If he understands the technique of dyeing, he can produce effects that are often far better for stage use than could be obtained by any material bought already colored; and, after all, the technique is not so difficult that it cannot be learned easily with a little practice, at least well enough to do some very satisfactory work.

Out of the many kinds of dyes, there are only a few that are necessary to the costume dyer's repertory, namely Direct, also known as Salt, dyes, Basic dyes, Acid dyes and Alcohol dyes.

Direct or Salt dyes are used to dye cotton fabric and linen, by the process of dipping the goods in a bath of the dye. Indeed this variety of dye is the backbone of the dyer's equipment, for the available color-range is wide, and in the all-around work it will be found that these dyes are most frequently called into service. For this reason, it is well to keep some of the oftenest-used colors on hand, in a strong solution that can be thinned out when it is to be used.

To make this solution, take one part of dye to twenty parts of water, and mix well; keep it in a bottle till wanted. If there is any indication that the dye is spoiling, add a little benzoate of soda.

When the dyeing is to be done, take a sufficient amount of water to cover the goods easily, and add the dye solution. The exact amount of the solution to be used can only be determined by experience; in general, it should be in weight about seven per cent. of the weight of the material to be dyed. Of course, the amount of dye solution to be used will vary according to the shade of color desired. A scrap of cloth dipped in the dye and wrung out will give some idea of the strength of the dye.

Add common salt to this dye bath in the proportion of three tablespoonsful to each gallon of water. Salt has a tendency to make the dye leave the water and cling to the material, so that far less dye is wasted.

If there is any cotton material on which the dye does not readily take hold, such as heavy muslin, which sometimes shows white spots even after considerable stirring, the dyeing process can be made far less exasperating by using a quantity of soap in the water instead of salt. Any soap of good quality will do. Heat this dye bath to the boiling point before immersing the material.

If the dye shows a tendency to rub off or fade, use one-half ounce of acetic acid to every gallon of water to set the dye; in the absence of acetic acid, vinegar will do almost as well. One dye man of long experience judges the amount of acid by the taste of a little dye on the tip of his finger. When it tastes "good and sour," the solution is right!

The next class of dyes is the Basics. They are dyes of exceeding brilliancy, if rather hard and unlovely in color. They are chiefly useful in dyeing over another kind of dye, say Acid or Direct, to give depth of tone. By their use cottons can be made to pass for silks or velvets very successfully. They will dye wool, silk and leather well, but they will not hold on cotton unless the material has first been dipped in a Direct dye; and they are exceedingly fugitive to light. For this latter reason they cannot be recommended for out-door work, but they are sufficiently permanent for the stage.

Basic dyes are used by dipping, and sometimes by spraying and painting. Make a thick liquid of the dye, about one per cent. of the weight of the material to be dyed, using hot water, and adding three spoonsful of acetic acid or vinegar to every spoonful of dye.

Pour this into warm water to make the dye bath. Remember to keep the dye bath continually warm, while in use.

Acid dyes are used for dipping silk and wool, especially when boiling is impossible. Mix a thin paste of the dye and water, about two per cent. of the weight of the material to be dyed, and strain this into the dye bath. Add one tablespoonful of diluted sulphuric acid and two of salt, to every gallon of water.

The last commonly-used class of dyes is the combination of dyestuffs known to commerce as Alcohol dyes. They are used for spraying and painting, for they produce fairly fast colors without boiling, and penetrate the fabric better than other dyes. They are, however, very deficient in good blacks, and have the more serious drawback of exceeding inflammability.

To prepare a stock solution, make a thick liquid by mixing the dye with denatured alcohol. Before using this solution, thin it out to the desired shade with a half-and-half mixture of alcohol and water. Remember not to smoke!

These Alcohol dyes, while they take hold on the fabric exceedingly well, still have a tendency to rub. The only way the writer knows of making the color absolutely fast is to use a solution of Sericose, Enodrine and ground pigment. Sericose and Enodrine are newly-imported materials, at present distributed only by one company, from which they can be procured through the larger dye houses.

This solution will not rub, and is absolutely fast to soap and water, but it will not stand cleaning by gaso-

line. It also has the serious defect of expense; Sericose costs $2.25 a pound, and Enodrine $1.20. To spray a hundred yards of material, from three to five pounds of the former will be needed, and fifteen pounds of the latter.

To mix a solution use one part of Sericose L. C. extra, to five parts of Enodrine and five parts of water, and enough ground pigment color to produce the desired shade. Put it in the spray, and stir frequently while using. This solution, when sprayed on cloth, will speckle it in fine dots, which is usually anything but a disadvantage for stage work, but if a more even texture is desirable, spray lightly with the foregoing solution and finish with a preparation of Basics.

To mix the Basics for this purpose, make a paste of Basic, acetic acid and water, and add Enodrine and then Sericose, with the pigment color in it. The order of mixing is important. The amount of Basic depends on the individual color and on the depth of shade desired, but a very small quantity will be sufficient. A fourth of a teaspoonful of Methylene Blue, for example, will color a whole gallon of solution.

Gold or silver can also be mixed with Sericose and Enodrine in the same way, and used for spraying, but only a fine grain powder will work satisfactorily for this purpose.

There is still another dye, not listed above because it is rather a luxury than an essential. It is known as Batik dye, costs about twenty-five cents a bottle, and can be bought at any artists' supply store. The colors are very fine and clear, especially the blue. It can

be used on any material, and is easily mixed merely by the addition of a little water, so, in spite of the cost, every dye cupboard should be supplied with a few bottles for fine work.

The other dyes—Salt, Basic, Acid and Alcohol—are sometimes not conveniently procured. Often they must be ordered from out of town, involving a delay of several days. They are largely handled by such companies as The National Aniline and Chemical Company, 40 Rector Street, New York, E. I. du Pont de Nemours and Company, Wilmington, Delaware, and The Grasselli Dyestuff Corporation, 117 Hudson Street, New York. They can usually be procured through any general chemical company, and sometimes in an emergency the local dry cleaning establishment can be persuaded to retail them. The package variety on corner drug store sale will not do. The first essential of good dyeing is good dye.

It is, of course, almost impossible to give any accurate estimate of the amount of dye needed for any stated production, since the quantity will depend on how the dye is used, how much material there is to be dyed, and many other considerations. Nevertheless, it may be helpful to make a very rough estimate for those who have never handled dye before, and have no means of judging how far a pound will go. Most costume plays average around two hundred and fifty yards of material, and if only one class of dye is considered and the method used is dip-dyeing, which requires more dye than the other methods, it will be well to allow about three pounds of dye. If the dyer is

experienced in mixing colors, a pound of each of the three primary colors will be sufficient.

When the stock solutions are made, bottled up and labelled plainly, the dyer is confronted with the question of how to proceed with the dyeing. He must know which costumes to dip, which to spray, and which to paint with a brush. This will depend on two things—the effect wanted, and the quantity of material to be handled in one piece.

It is foolish to dip-dye more than five or six yards of material in one piece, unless the dyeing equipment is exceedingly good, for one person or even two can hardly handle more without somewhat doubtful results, a good deal of variation from light to dark, and a quantity of dye over everything within splashing distance. Spray-dyeing is the solution. As much material can be sprayed at once as there is space to hang it up in, and with any amount of evenness or irregularity, as desired.

The third method of dyeing is applying the dye with a paint brush. This is a slow process, but there is all the difference between brush dyeing and dip or spray dyeing that there is between painting a house and painting a landscape. Almost everything involving designs and patterns must be painted on the material, free-hand,—a real test of the dyer's ability. Some patterns can be sprayed on, it is true, with a wide-margined stencil, but the method is not particularly accurate, and only one color can be employed, unless many exactly-fitting stencils are cut and used to cover up the portions which are not to receive the dye. This

stencil process is very laborious, however, and only worth while when a large amount of this kind of dyeing is necessary, and no one can be found with skill enough to do it rapidly, free-hand.

For the sake of efficiency and speed, all the work involving one method should, if possible, be dyed at one time. And the dyeing should be done and out of the way as early as may be. This is particularly true if the dyer does not have a separate room especially equipped for him; he is like to be unpopular, for it is not pleasant to be dripped on by freshly-dyed material, or to walk into someone brandishing a spray.

Dip-dyeing is in some ways the easiest of all, for it needs no special equipment and requires nothing of the worker but good judgment and a powerful squeezing hand. In this dyeing, it is not always possible to boil the material, and boiling is very arduous. If the dye does not rub off when the material is dry, the effect is quite as good when the material is not boiled. Some dyes, and especially Direct reds, do rub, and for the sake of the wearer the material should be boiled in the dye.

To prepare the cloth for dyeing, rinse it thoroughly in hot water to remove all the dressing, which has a tendency to resist the dye, and wring it out well. The cloth must be worked thoroughly while in the dye bath, to make sure that the dye has reached every part. If the material is too large to go into the dye bath all at one time, start at one end and slowly work to the other, and then back again, beginning the second dipping with the end last in the dye. As the dye naturally

grows thinner, this will spread it evenly over quite a large area.

Let the material become several shades darker than the shade desired, for, with the exception of red, which varies but slightly, the material will dry out considerably lighter. The only way to judge, without experience, the shade the material will be when dry, is to wring a small corner of the goods as dry as possible, and the shade that appears on the very top of the wrinkles you have made will be almost the shade it will have when dry.

When the material is dyed, rinse it in cold water, and hang it up to dry. It is best to hang it by one selvage, for the dye has a tendency to drip downward and make the part near the ground darker than the part next the line. This is not nearly so likely when the material is hung by the selvage and the dye has only the width of the cloth to drip, as when it is hung by the middle, and the dye allowed to run half the length of the cloth.

There is a variation of dip-dyeing which is one of the parlor tricks of the costume dyer. It is known as "tied and dyed work," and the method is to tie portions of the material into knots, or wrap them with tape, and dip them, so tied, into the dye. When the cloth is rinsed out and unknotted, a pattern of irregular shadings will be found on the cloth. It may be again tied in different ways, and dipped in another dye, for the combinations and variations are endless.

Spray dyeing requires a good deal of space, and a wall nobody cares about. It also calls for a spray that may be anything from an electric air gun, cost-

ing two hundred and fifty dollars, to the kind that the gardener uses on bugs. And, quite candidly, it must be said that the cheap kind works every bit as well as the expensive one. The only difference is that the one must be pumped by hand and the other pumps itself. We will concern ourselves only with the bug spray, under the impression that any organization which is ready to pay two hundred and fifty dollars for an electric pump probably knows all about spraying already. Moreover, there is nothing demeaning about using cheap materials if they will produce a good effect. A young painter once asked an old and famous one what kind of brushes to use, and the old artist answered, "Use a shoebrush, my son, if you can paint the best pictures that way."

For all practical purposes, then, a one-gallon spray, with a long hose attached, will serve perfectly well. The nozzle is the important thing. There should be one to emit a very fine spray, and two others, slightly coarser, to make different textures. The whole equipment—pump, nozzles, and everything—can be bought for very little at any hardware store.

The material must be stretched on a frame, and an old-fashioned lace curtain stretcher does very nicely unless you are proud, or, if the material is too long for a frame, it can be hung from the ceiling with a board tacked on the bottom to keep it from hanging in folds. Make sure the spray is clean, fill it with dye, and turn it on something to test it before spraying the cloth. For the best results, this kind of dyeing ought to be done by two people, one to pump, the other

to control the spray. Leave the material hanging until it is dry.

The third process, painting, is by far the most interesting, besides being the most difficult. Here the curtain frame comes into play again, or a Batik frame, or what you will, so long as it is adjustable in size, with something all around the edges to hold the material. The cloth is stretched tight on the frame, and the frame placed parallel to the floor, so that the colors will not run into each other. Suppose, for example, the problem is a dress with an elaborate design around the hem, neck and sleeves. The pattern should have been cut, or the pieces drawn with charcoal on the whole piece of cloth, as seems easier in the particular case, and the portions to receive the design indicated. If the pattern has been cut out, there should be a margin left around the edges of the pieces, to be used in fastening it to the frame.

Now comes the problem of putting the design on the cloth. If there is anyone near with even a small ability at free-hand drawing, it is easy enough. Give him a piece of charcoal and the artist's sketch, and tell him to draw in the design, and not to be afraid of irregularities, for one of the miracles of the stage is that such things never show.

If, however, there is no genius available, and the design you are copying happens to be the same size that it is to be on the finished costume, then trace it with tracing paper. When the tracing is finished, place it on the cloth with a piece of carbon underneath and draw over the lines again. This will transfer the de-

sign to the cloth. But if the design to be copied is smaller than it is to be on the costume, the problem is not so simple. Measure the width and length of the design and determine how much larger it is to be on the costume; then mark the design off into little squares, each one representing, say, an inch. Now, in the same way, mark off the space allowed on the pattern for the design into squares, but larger in the same proportion that the design is to be larger on the costume. By noting the position of the design on the small squares, it can be sketched out in the large squares. This should be a sufficient guide even for that not uncommon type of person who "can't draw a straight line."

Perhaps the possibility of ruining a piece of material is appalling. If it is, the little squares and the design can be drawn on a piece of paper, and then traced on the costume. This is not as laborious as it sounds; nevertheless, genius is quicker.

When the material is stretched on the frame and the design drawn on, the painting can begin. For heavy material, use small stiff brushes of the kind used for painting in oils. For work on silk and thin material, use camel's hair water-color brushes in any size easy to handle. Use the dye just as you would use a paint, remembering that if there is a large area to be covered with one color, the dye must not be allowed to dry out at any point till the entire space is covered, for the brush will make a permanent mark wherever it touches dry dye. A narrow line should be left between each of the colors to prevent their run-

ning into each other. Far from injuring it, this white line between the colors helps greatly to give the design life and character on the stage, and oddly enough, it does not show.

A design that is large and bold, with very little detail, is the best for stage use. Anything that is delicate or fussy is either completely lost by distance, or looks insufficient and weak. It is sometimes hard to get used to the difference that distance makes, and there are some artists who will go on till the end of time working on silly little details that never carry beyond the footlights.

The merciful thing is that, if distance blurs design, it blurs defects as well. In fact, it is a real mistake to dye too evenly. Flat colors with no variation are characterless, but a mottled color has what is known as vibrancy of tone; that is, it has deep places and light places, just as velvet is deep and dark in some spots and light and colorful in others.

Part of the costume dyer's work is imitating fine materials with cheap cotton and dye. It is, of course, impossible to imitate the weave, and dyeing may ruin all the artificial shine with which cotton is sometimes finished to deceive the eye into believing it something better. There is, then, only the way materials take the light, and it is on his ability to imitate this that the dyer relies. All material is full of high lights and shadows, partly the result of the way the material is woven, and partly of the material itself. Silk always has more luster, in other words, more contrast of light and shadow, than cotton; and this is why cotton must

be treated in some way before it will pass on the stage as silk.

There are several ways of imitating the light and shadow of silks and velvets, by giving the cotton a greater variation of tone than it naturally has.

The process called "flecking" is perhaps the most frequently used. The material is covered with innumerable irregular spots of dye, either a darker shade of the same color, or another color altogether. This is done with a rather dry brush, held in the right hand at a distance of two or three feet from the cloth. The left hand holds a small block against which the handle of the brush is struck to make it spatter the dye on the cloth. The disconcerting feature is, of course, that the dye spatters backward as well as forward, so that the dyer is apt to find himself as nicely flecked as the cloth.

Another method is to spray the dots on with a hand spray, but this makes a more even surface with the splotches closer together. The effect under the stage lights is quite different.

Sometimes the shadows are put on directly with a brush. This method consists of drawing many fine lines that cross each other back and forth. These lines may be varied in many ways, each producing a somewhat different result.

Still another way to "fake" material is to give it what is known as a top dye in another color. Suppose a piece of cotton dyed in yellow has come out flat and uninteresting in color. If it is dipped or sprayed a second time in a weak solution of red, the tone value

of the material will be greatly improved. It will still be yellow, but a yellow that has lights and shadows in it.

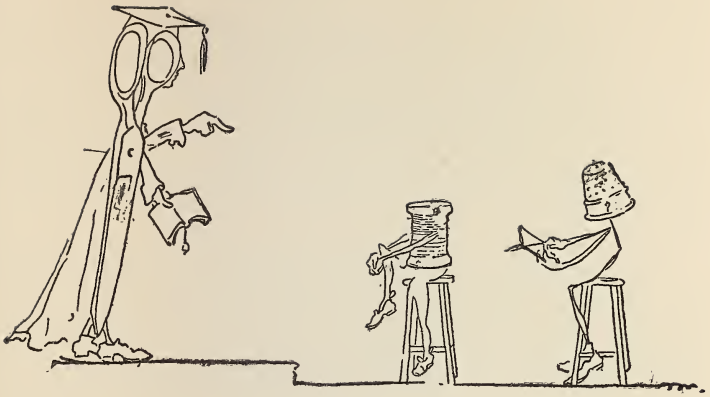
These are tricks to put depths and shadows into the cloth, but because it is not possible to dye with light over dark, the light places must retain the color the material was originally dyed. If, however, the color of the finished costume still seems lifeless, it can be touched up here and there with a little light-colored paint—scene paint, or show card colors—to make artificial high lights.

Shadows are often put in also, in addition to the original fleck or top dye, but they are done with dye instead of paint, and like the high lights, are applied after the costume has been made up. Shadows should never be solid, but flecked, or made with little crossed lines.

Both high lights and shadows must be reasonable. They must occur only where shadows and lights would naturally be on a costume, and this takes a deal of observing. Nevertheless, the study of cloth and how it takes light and shade is endlessly fascinating. Each kind of material lights differently, each has its own peculiarities of texture and tone.

Suppose the problem is to produce a piece of cloth of gold. Gold has a color, which is yellow, so first of all the material is dyed yellow. Gold may also have a tone; it may be green gold or red gold, or may have a black cast the color of tarnish. Suppose that red gold is desired. When the yellow dye is dry, the cloth is top-dyed in a weak solution of red, perhaps being

twisted when it goes into the dye to prevent the color taking hold too evenly. Last of all, it is sprayed with the gold solution. When it is taken up on the stage under the lights, an amazing transformation takes place. It is real gold.



CHAPTER VII

A SERMON ON SEWING

SPECIAL NATURE OF COSTUME SEWING—FIT AND FINISH—RACING THE CURTAIN—HEAD-DRESSES—EQUIPPING FOR EFFICIENCY.

The head of the sewing room has generally been given that position because of an unusual aptitude for sewing. The amateur with a needle seldom attempts to costume a play. Consequently, little need be said about the technique of putting a garment together, were it not for the fact that experience shows even the skillful have certain shortcomings, little things that are persistently done wrong, because of the essential difference in the sewing required for stage costumes.

Many workshops have a set of rules about the making of costumes that must be followed in all ordinary cases by those who sew. They are concerned with methods of procedure, and have usually been built up

of those things which experience shows even the best of dressmakers honor more in the breach than the observance. These were noted through a number of productions employing different workers, and they have been used as the basis of a chapter obviously too short to cover in any detail the whole field of dress construction.

A dressmaker accustomed to making modern clothes is apt to find herself hopelessly at sea when she is confronted with a period costume. This is because her knowledge is of a particular kind, embracing only modern fashions, and not the general knowledge which can be applied to anything that classifies as clothes. She knows how to put in a modern sleeve, but she may be quite at a loss to adjust one that is three times as big as the armscye.

She is also apt to be unaccustomed to working under the pressure of hurry that seems to be an inevitable part of stage costuming. What she does must be right the first time; she must acquire the knack of working both quickly and carefully, eliminating every unnecessary step. She must not waste the actor's time with unnecessary fittings, nor her own with useless bastings and rippings.

When a costume is handed over to the sewing room it should be already cut to measure and pinned to indicate how the parts go together. The first step for the sewing room is to prepare the costume for fitting. As a general thing not more than two fittings should be necessary, and this is a rule that should be adhered to with some rigidity. If a costume is well

prepared and carefully fitted in the beginning, it need not be tried on again until it is all but finished.

It is seldom wise to sew the seams by machine before fitting, however tempting. Seams should be basted with a double thread, and at the beginning and end of each line of basting the thread should be caught firmly, that it may not break in putting the garment on or off. The basting of all seams, except the curved seams like the armhole, neck and cuff, should be done with the pieces laid flat on a table. Basting with the material in the lap is apt to be one of those short cuts that turn out to be the longest way around.

The shoulder seams are basted first. The shoulder line of the back section is sometimes cut a quarter of an inch longer than the shoulder line of the front section. When this is the case, the front section is stretched slightly to correspond, and basted with the back section held toward the worker. If either shoulder line is too long, superfluous material should be cut off at the armscye; in other words, the basting of the shoulder should begin at the neck and run toward the armscye end of the seam, where, if there is any unnecessary length, it may be cut off.

The underarm seams are next in order. They are matched, front and back, at the waist line, and if there is any unnecessary length in either front or back, it is taken off at the armscye. If the waist and skirt are all in one piece, the front and back are matched at the waist line in the same way, and any unnecessary length in either part of the skirt is taken off at the hem line.

When the skirt is cut separately, the sections are

basted from the hem toward the waist, and unnecessary length in either seam is taken off there.

If there is to be a belt on the waist or skirt, it should be pinned in place at the center back only, and the fullness of the garment adjusted to it during the fitting.

The sleeve seams are basted together, beginning at the wrist, and unnecessary material is taken off at the armscye. If the sleeve is to be gathered into a cuff, a gathering string is run around it at the wrist, drawn up to the correct size and wound around a pin during the fitting.

The sleeve is basted into the armhole. This part of the work should be done with the material in the lap, the dress wrong side out and the sleeve held toward the worker. The sleeve is placed in the arm so that the up and down threads run in a straight line from the high point of the shoulder to the elbow. The shoulder point can only be determined accurately during the fitting, but it will probably be approximately a half inch to the rear of the shoulder seam. When it is located on the waist, the armscye is folded in half from the shoulder point, and the seam of the sleeve is placed where the underarm crease of the folded armscye falls. This may or may not be directly at the underarm seam of the waist. Basting begins at this underarm point, with a preliminary row of gathers if the sleeve is to be fulled, and with careful adjustments of the bias parts of the sleeve if it is to fit snug.

Openings are made, and some of them can be finished before the first fitting. Those in the center front

or center back of a costume can be completely made, even to the hooks and eyes, but those in the fitted parts of the costume, such as the shoulder openings, underarm openings and fitted sleeve openings, must wait till that part of the costume has been fitted.

When these things have been done the costume is ready to be fitted. These preliminaries may seem unnecessarily long and elaborate, but if the work must be skimped, this is not the place for it. A costume can appear on the stage with a ragged edge instead of a hem, and the audience be none the wiser, but distance and stage lights can never deceive the eye about the way a costume is put together, or the way it fits. Certain defects are invisible on the stage, it is true; white stitching can never be told from black, even so near as the first row. But certain other defects are far more noticeable on the stage than the street. There is nothing more legitimate than to take advantage of distance and lights, but one must be very sure what liberties they will allow.

A costume is usually fitted wrong side out, if a tracing wheel is not used. The wrong-side-out method is perfectly satisfactory for most costumes, unless the right and left sides of your actor happen not to match. If he is not lopsided, the fitting is done on one side only, usually the right, and the other side altered afterward to correspond. The seams are fitted in the same order that they are basted, with a careful eye to remedying any faults the figure may have. The length of the shoulder seam will have much to do with the appearance of shoulder breadth, and the location

of the seam, front or back, can help to overcome round shoulders or narrowness of back. The slant of waist darts can decrease rotundity.

The neck line is cut in this first fitting, and the skirt length determined. Care must be taken that the costume is nowhere too tight for the dramatic action that the part may demand.

When the fitting is finished, the machine sewing is done. Seams are carefully spread open before stitching, with the exception of the shoulder seam, which lies folded together toward the front, and the armscye seam which lies toward the waist. Collars, cuffs and trimmings are applied, and the openings finished, before the final fitting. The skirt hem is basted or pinned, but not sewed until it has been tried on.

Openings should always be as invisible as possible, and no larger than necessary to put the costume on easily, with the exception of the cuff opening, which is always made large enough to allow the cuff to be ironed flat. Where hooks and eyes are used, they should always alternate, in order that the opening may lie smoother. Women's clothes traditionally fasten, right side over left, and men's exactly the reverse.

The second fitting is scarcely more than a process of checking up on the results of the first. The actor should be allowed to move around in the costume to make sure that it is not restricting and can be easily managed. If there is any doubt of this, he should wear it on the stage, where entrances and exits and some of the more difficult business can actually be

tried. If a train is too long, it should be discovered well in advance of the dress rehearsal.

When the final fitting has been made, the dress goes through the process of "finishing." Just how carefully the finishing is done, depends on the distance of opening night. Here, if anywhere, time may be saved. The finishing of raw edges is not a matter of necessity since all the raw edges are on the inside and none but the wearer is the wiser if they have been neglected. If the costume is destined for repertory, seams should be finished to prevent them from fraying out or splitting, but they need have none of the elaborate hand work that helps the dressmakers increase their bills. Usually, it is enough to pink the edges of the seams and occasionally to run an extra line of machine sewing down each side of the seam near the edge to prevent fraying.

Selvages should be cut away wherever they appear, for they do not have the same elasticity of weave as the rest of the cloth, and if left in a hem or a seam will tend to pucker the material. Hems should always be put in by hand, never by machine; in material that does not crease easily, however, it may be advisable to machine-stitch the first turning of the hem, near the edge, to make a flatter hem.

If armholes are not bound, they should be stitched a second time by machine about a quarter of an inch in from the first stitching. Armholes are the points of greatest strain and this is merely a precaution against mishap. The finished seams should be nowhere over an inch wide, and at the neck, cuffs and armscye,

not more than a half inch. Darts should either be hemmed flat, or they should be cut open, pressed flat, and their edges pinked or finished.

The last stage of all is pressing. If time prevents going over the whole garment, the seams at least should be pressed. Stretch the seam a little, while running the iron over it, to take out any possible pucker. If the costume is to hang long before wearing, put a piece of crinkled paper between the shoulder and the bar of the hanger, and stuff small wads in each sleeve. Wooden hangers will crease the garment less than those of wire.

It not infrequently happens that costumes must be made without any fittings at all, often without knowing who is to be the wearer. Pressure of production may mean that they have to be turned out with factory rapidity and without much reference to nicety of detail. The efficient way to make a large group of costumes of similar construction in a hurry is the factory way, one person doing only one operation. Where there is no fitting, there need be no basting or even pinning, and seams can be run up directly on the machine. In this case, the shoulder seams are all finished first, then the sleeves are set in, then the underarm and sleeve seams are run up together in one operation, the armscye seams being matched, and any unnecessary seam length cut off at the bottom of the garment and the wrist of the sleeve.

Head-dresses are often somewhat complicated and appalling edifices, but in reality anyone clever enough to make a good costume can manage a hat as well.

The same kind of knowledge of sewing is necessary, and as in the case of costume, proficiency means practice.

A hat is just as good as its foundation. The crown may be made out of a straight piece of buckram or any other milliner's material that is coarsely woven and filled with sizing. It may be rounded to fit the head by steaming the material until it is pliable, and shaping it over a mold. If the crown is too soft, it can be stiffened by an additional coat of sizing, but the mold must first be well greased with any heavy grease, else the sizing will penetrate and glue the buckram firmly to the mold. A string is tied down around the crown near the bottom of the mold to hold it in shape. This crown must not be removed from the mold until perfectly dry. When it is pulled off the mold, the bottom edge is trimmed and wired. Hat crowns may be bought ready-made, though for the production that must count the cost they are apt to be too expensive.

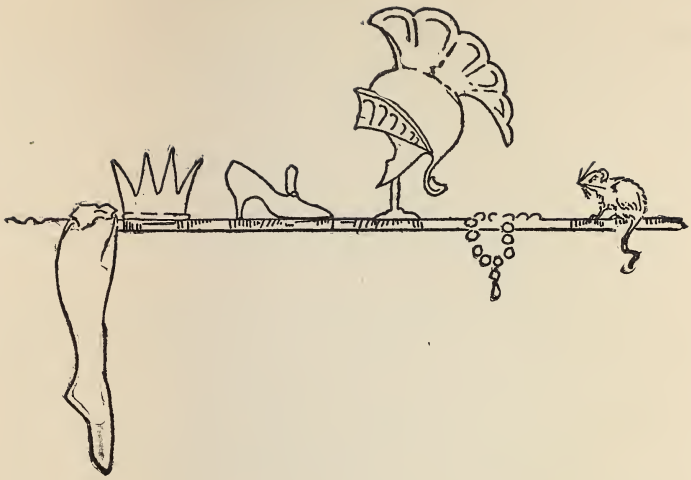
Buckram should be used in double or even triple thickness whenever possible, especially when it is to receive no covering but a coat of paint. A queen's crown of a single thickness is almost certain to pull askew in the wearing, but with three layers it will keep the shape at least well enough to let the imagination believe it solid metal.

Edges of the buckram should be wired to keep their shape, and if the buckram is to be painted, edges which are handled in putting the head-dress on and off should also be bound. The binding is made of bias tape, and

may be sewed on by machine, even over three thicknesses of buckram.

Painting will shrink buckram considerably, and should be done if possible while the buckram is still in a flat piece. If it is done after the head-dress has been wired, the buckram will shrink away just above the wire and spoil the contour.

For costume-making and millinery alike, the sewing equipment can be just as simple or elaborate as the individual workers desire or the budget permits. Time-saving requires that there be a plentiful supply of the staples,—pins, needles, scissors, and tape measures,—and if possible, sewing machines in the proportion of three to every five workers. If each worker has her own individual equipment, including all the things she ordinarily needs, there will be a saving of the minutes too often spent in saying, "Pass me the pins" or "Who has the scissors now?" The person in charge can enormously increase the efficiency and the workman-like attitude of the workroom by making sure that no one is handicapped by lack of necessary tools. Efficiency means materials easy to hand.



CHAPTER VIII

ACCESSORIES AFTER THE FACT

ARMOR—CHAIN MAIL AND PLATE ARMOR—IMITATING METAL—HELMETS—JEWELRY—WIGS—FOOTWEAR.

Supers must have been cheap in Shakespeare's day, for nearly all his plays include a standing army. This lord or that enters with the armed forces of England at his back. Of course, these forces may consist of five men or fifty, according to back-stage accommodations and finances. But how simple it would be if the stage directions read: "Army heard off stage"—where it could be left to make appropriate noises in the wings —for armor is the nightmare of the costume workrooms.

There is not the slightest wonder in this, since ar-

mor is usually made out of the most unlovely and intractable materials—that is, unless you acknowledge your Waterloo and rent the collection of tin sheeting that the costume broker calls period armor. It is true, there are places where really fine armor can be had for hire, but the usual collection is of the most commonplace and ordinary description, and often a ludicrous misfit.

Robert Benchley tells that in his youthful days he appeared as one of a handful representing the might of Empire, dressed in a metal corselet of Moyen Age design, but unfortunately for his future career as an extra, he managed in one of his off-stage waits to connect with a current of electricity; Benchley saw stars, the short circuit burned a hole in his corselet, and the management was rude.

There are two kinds of armor,—the solid plate type, and chain mail. In the theatre the latter is far more popular, because it is simpler to make and easier to act in. But it is curious that industry has produced nothing of metal that in the least resembles chain mail, which the costumer can turn to his purposes, except the well-known wire dish rag. Even these are prohibitive at fifteen cents apiece, and they are most unmanageable. They do well enough on the edge of a tunic to suggest chain mail underneath, or for trimming on a helmet, but that is all. The gorgeous suits in moving pictures and opera are knitted out of cord, and dyed and silvered. From a distance the illusion is perfect; but knitting is not always practical because of the time it requires.

Manufacturers of fabrics for the stage sell a material known as chain mail cloth. It is a brocaded metal cloth, patterned with small half-moons of gold or silver representing the links. It is a very poor subterfuge at best, for real mail is heavy and hangs straight, but cloth will wrinkle in an unmistakable way.

Aside from knitted cord the best substitute for chain mail the writer knows is mop cloth. There is a kind with a very heavy weave, sold by wholesale cloth merchants, which serves the purpose admirably. It has large knots and ridges which, after the material has been dyed, suggest the links of chain mail. Moreover, it is tubular and of just tunic size, so that the finished suit is seamless at the sides.

The material when it comes from the store is white, and must have a bath of dye before it can be used. It should first be cut approximately the size of the armor, for it is too heavy to dye in the piece. It should not, however, be made up until the dyeing is finished, for it is apt to stretch into all manner of strange shapes in the dyeing.

The color of the dye should be a medium dark gray. It is absurd to give armor the appearance of silver, as is so often done, and nothing betrays the imitation so quickly. Most historic armor is, in reality, polished iron, which under no circumstances takes as high a luster as silver. Gray dye approximates it more nearly, and the tops of the knots may be touched with silver paint to look like high lights on rubbed links.

The ability to make armor is a test of observation

in such essentials as color and cut. It is surprising, on examining real armor, to find how false our memory can be in these details. But though we may fail to remember the exact appearance of old armor, we are quick to detect untruth in the copy. We may go on painting our makeshifts with aluminum powder till the end of time, because we have not realized that armor is not silver, but we will never be honestly pleased with the result.

Plate armor is usually made of papier maché in the way described in the chapter on Masks. The chief consideration is the fit, and a deal of careful measuring must be done in making the mold to build it on. For this reason corselets are perhaps the hardest of all to make. The grace of the figure will depend on the body armor, and unless it is good in outline and fit, it will be better to abandon it for chain mail whenever your historic conscience will let you.

Corselets are fastened on with straps and buckles, which are glued to the armor with strips of paper while it is in the process of making. Ornaments may be made of paper mixed with whiting and a little glue, mashed to a pulp, and applied like modelling clay.

The smaller pieces of armor may be made of buckram, or of canvas if there is no danger of wrinkles betraying the cloth. In using buckram, two or three thicknesses are sewn together. Canvas will fray and must be bound around the edges with a bias binding tape, which makes a raised edge and greatly improves the appearance of the piece.

Plate armor is finished with graphite, which can be

bought in the dry powdered form, at a painter's supply store. It is mixed with glue of a little thinner consistency than that used for the papier maché, and painted on the armor with a brush. When it is all but dry, the surface should be polished with a rag dipped in the dry graphite. The result will be a dull luster finish very like polished iron. To make brighter high lights, shake out a little silver powder on a piece of paper, and while the glue is still wet, blow it gently over the armor. The particles of silver will settle on the raised parts and produce very plausible high lights.

The ornamenting of helmets has always fascinated makers of armor, perhaps because the design and shape of a casque has so much to do with the warlike appearance of a knight. It was probably good psychology that put a ferocious lion on the helmet of the Black Prince, for it not alone had a suggestive value, but it made him look half a head taller and a fearsome enemy to encounter. All the rest of the suit of armor had to be strictly practical, but the crest of the helmet offered a handy place to flaunt a little. Moreover, something solid on top must have turned many a skull-cleaving mace blow.

Stage helmets should be made of paper strips in the same manner as masks, for if they are of a less durable material, like buckram, they will dent and lose their shape, and in a few nights will look more like an Irish derby after a brawl than a solid, custom-built, polished iron casque.

The headpiece is first made of paper strips and glue. This must be allowed to dry before any decoration is

added. Visors, crests and plumes can be made of buckram, wired to hold their shape, and covered if necessary with a layer or two of paper strips to give them extra strength. The heavy decorations of the Roman helmets may even be made of wood, and tacked to the headpiece, for layers of paper and glue will hold a deal of weight.

Helmets may be finished with graphite, or may be bronzed or gilded; they will look more convincing if the color is not laid on flat but shaded somewhat from light to dark. They should be well shellacked on the inside to protect them from perspiration.

Stage armor of this kind is at best a makeshift, but it has one very great advantage over the costume renter's tin hats. If you make your own armor, you are absolutely free to carry out the style of the production in its design. If you are stressing simplicity or grandeur, you can have your armor in keeping with the plan.

Burne-Jones once designed some costumes for the stage, and if he had not likewise designed the armor there would have been an inconsistency, for his style, like many other artists', was so individual that it mixed indifferently with another's. The drawings of his helmets are masterpieces of design. They have a freedom and grace of line, and at the same time show a fine understanding of the nature of metal. It is far better to have a paper helmet which is good in design than the finest metal confection that is not in keeping with the production.

The design of a helmet must not betray the paper

of which it is made. There is danger in the ease with which paper and glue and wired buckram can be molded into shapes that could not be made in metal, or, if rendered in a weightier material, would be too heavy for the head. The malleability of paper must never make you lose sight of the fact that you are imitating metal; the design must be one that would be practical in bronze or iron or brass.

The accessories of the stage form a long list of makeshifts. A spare rim from the theater Ford makes a ring of bronze in which to hang a Chinese temple bell, a stained glass window is painted muslin with a light behind it, and wrought iron is merely black telephone wire, bent into the proper shape. The costumer is always on the watch for materials which on the stage will look like something else. Jewels bother him somewhat, for even spurious cut glass comes high. The queen must have a crown of barbaric splendor, and the costumer goes shopping for his rubies and emeralds among a counterful of colored gum drops. When they are pinched and cut to form, they rival the crown jewels in brilliance, provided the sugar coating be rubbed off just a little to show the color underneath. On the stage they are a great success, if you can keep your starving actors from devouring them.

Jewels should be used with discretion, for oftentimes the flashing of a stone will distract the eye. The courtiers sit around the table by candlelight while the king talks; a little spark of light from the ring on his finger winks and winks, and we find ourselves noticing and wondering what kind of stone it is.

Chains, girdles and necklaces can be pieced together from a well-stocked tool chest. A little ingenuity with wire and a handful of washers will provide a ceinture for a duke; even a string of the mundane safety pins that hold a shower-bath curtain will, if hammered out, make a necklace for a Guildenstern, and the audience be none the wiser.

Charles S. Brooks thus describes himself as the Pope in "Faustus", in the early days of the Cleveland Play House:

"I dressed myself in a sheet that had been cut to a priestly robe, and hung about my neck a wealth of Medicean jewels. The great ruby that sparkled on my stomach had begun life as a red gum drop—three to the penny from a pail, and it was suspended on a chain that seemed borrowed from the plumbing."

If only costuming could stop with the dress of an actor, and not be compelled to play Providence in the bestowal of hair. But few indeed are the crowning glories that will conform to the variety of parts an actor has forced upon him. His stage career is apt to be a long history of toupees and wigs in keeping with the characters he plays. Fortunately, wig-making is outside the province of the costumer, except in those cases where something special must be done, for the construction of a wig is elaborate and requires a specialist.

Unless a wig is very well made, it is apt to be a poor imitation of real hair. We know the Melisandes and Marguerites whose tresses really are flaxen, of rather poor grade, and it is hard for illusion to live down

such a wig. It often seems better, when a good wig is not to be had, to make the hair frankly artificial and treat it as a decoration. Ladies of drama with famous hair might wear wigs of golden thread or yellow silk. These are not hard to make, though somewhat tedious for each thread is drawn separately through a fitted skull cap.

When the costumer is not bound by realism to use life-like hair, he is apt to enjoy himself thoroughly; and a ferocious pirate in a children's play will step out on the boards with brick red hair and bristling orange mustachios of knitting wool. A whole production can be carried out in this manner with not one scrap of real hair visible, and the effect be extremely decorative. After all, nature was stingy in the color range she allowed us for our hair, and whenever the type of play permits, most certainly we can steal a march on her and have locks of blue or violet to our choosing. But when you are doing this it is better not to dye a realistic wig, but to make the hair of some material that is obviously meant only to suggest hair.

These artificial wigs look best, worn with a hat or head-dress of some kind, so that the color, shape and line of the wig can be a part of the design. The Princess of the faëry tale might wear flowing robes and head-dress of orange and gold, showing an inch or two of sleek parted hair, green as emeralds. And to save the Princess time in her dressing room the hair might be merely painted on the head-dress. But, of course, before you experiment with decorative wigs,

you must be sure that there is a quality of fantasy in the play that will allow it.

Remember that the design of the wig must allow the face and the profile to be seen. Too often an actress lets her hair fall in such a way that from the side her face is hidden from the audience. And for the time that she stays in that position the force of facial expression is lost.

Pose depends on footwear. The base of an actor is something like the base of a building which must match the structure above. The supple poise of a señorita begins with the high heels on her shoes. The balance of her body is adjusted to them, they control the style and manner of her walk. Imagine her in flat ballet slippers, and think how different the whole character of her motions would become. Instead of walking in quick staccato steps like so many taps of a tiny gavel, she would move with a gliding motion, and the curve of her body, the position of the shoulders, and even the angle of her head would be adjusted to the different balance.

A heel two inches high will throw the head more than two inches forward in a person of average height. Think of the difference a forward tilt of several inches would make in the figure of the Venus de Milo, and you will have a fair idea of how much the character of costume depends on shoes.

Shoes must fit. We know the type of fashionable lady who persists in buying her shoes too small, and how they rob her of all dignity and make her look as though she were walking on tacks. This must never

be allowed on the stage; fortunately it happens less often than the cramped movement resulting from the opposite cause.

In a dress rehearsal of "Androcles and the Lion," Cæsar found his sandals were too large. They were not very much too large, but when he was chased by the lion and had to run upstairs and down, they made him feel uncertain of his foothold and limited his action. On the opening night he wore no shoes at all, but the audience was none the wiser, for he had drawn black sandals on his feet with grease paint.

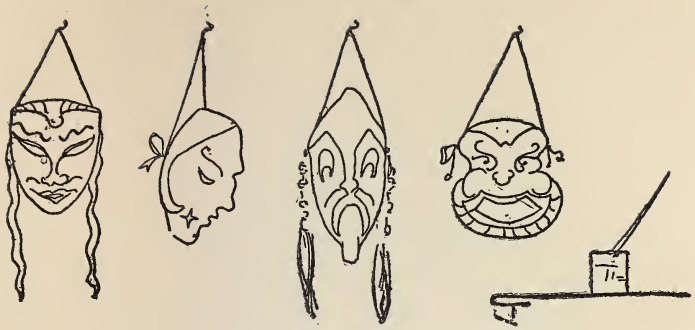
Such a fraud is not as easily detectable as might be imagined, for when the foot is flat on the ground the absence of the slight thickness of the sole is hardly noticeable, and when the wearer is in action the spectator is even less likely to notice what he has on his feet.

It is hard to say what costumers of a future day will do about the footwear of our times, if period shoes are then as hard to get as they are now. But, luckily for us, the ladies of the past mostly concealed their footwear under their gowns, so that except for the general shape we need not be particular about the details, and the omnicompetent ballet slipper fills the greater number of our needs. Ingenuity goes a long way, and sometimes a modern shoe can be remodelled to the shape of a former time by means of paper stripping and glue; but if this is placed over a part of the shoe that bends in walking, it will crack off.

Period footwear is expensive and for the play of short run the shoeing cost will take a disproportionate

place in the budget, unless some makeshift is found. The women's gowns conceal, but the men are left with nothing to hide their feet from view. All the periods of dress that included tights as an article of man's apparel had shoes that are not very difficult to imitate with felt or heavy cloth, though if you have fifty or more characters to shoe, the task becomes arduous. For the Moyen Age plain woolen socks, worn over the tights and turned down until they form a roll below the ankle bone, will answer the purpose very well.

The shams of the stage are not to be decried because they are visual falsehoods which no other art would tolerate. The fabric of the stage is illusion. Dramatic art is not the less art because its purpose is make-believe.



CHAPTER IX

MASKS AND HOW TO MAKE THEM

MASKS AND THE ACTOR—MATERIALS AND PROCESS FOR MASK-MAKING—PAINTING THE MASK—DESIGNING AND MODELING

Masks are older than theater. They had their beginnings in the worship of savage man, when his religion was fairly cluttered with devils, each with a symbolic mask. If one of these fiends had taken a savage unawares and possessed him, a dance was made and the devil invited by symbolic gestures to leave the possessed and enter the mask, and so be carried outside the limits of the village. If hunting was bad, out came the masks for a dance that represented the game coming down to be killed, to work magic on neglectful spirits.

It would be interesting, though no doubt difficult, to discover when the mask ceased to have an altogether religious significance and came to be used for fun-making and play. This must have been early in his-

tory, for the advantages of a disguise are many and we all have in us somewhere the joy of masquerade. A false face releases the wearer from the ordinary restrictions of conventional behavior. We need only to watch a boy at Hallowe'en disguised with a pumpkin head. Safe in his mask, he smears our doors with mud and soaps our windows as he would never dare to do if he thought we could recognize him. In European cities, where the masked carnival still survives, the police records show a great increase of tricks and pranks in masking time. A mask frees the wearer from being himself. One is tempted to wonder whether the procedures of a secret organization would be quite the same with the pillow-case off.

Disguise liberates make-believe and impersonation. Here are the deep roots of acting and drama. The effect of a mask is to throw the actor out of reality, to blot out his personality and make of him an abstraction, an animated design. He becomes distinctly unhuman, though full of vitality, like something "come alive". Even if the mask he wears is as like the human face as possible, he is still under a spell, for the mask will not let him be real.

Nor is the actor's difficulty with a mask inconsiderable. He can no longer rely on changing facial expression to carry his meaning, and must fall back on voice and gesture alone. He is compelled to broaden his gestures a little, to put more force and point into his diction, and so artificialize his acting to overcome the restrictions of his mask.

So it is perfectly clear that masks are not to be

taken up lightly or inadvisedly, and a strong dramatic reason is needed to justify their use. A good mask has a powerful effect, partly because of the artificiality, partly because of the design, and unless both artificiality and design are in strict keeping with the play, a queer disjointedness results. It is hard to say just what quality it is in a play that makes the use of masks legitimate. Certainly it is something of unreality, of mysticism perhaps, that is in itself as disconnected from what we call reality as masks are from flesh and blood.

The immediate question, however, is the process of mask-making. Masks have been made of every conceivable substance, including copper and paper, feathers and the human skull. In Japan, where the art is a family tradition passed on from one generation to another, the masks are made of carved cedar wood as thin as an egg shell and almost as light. There are masks of mosaic and of raffia, and the Incas make theirs of beaten gold. But modern masks, it will probably relieve the beginner to know, are usually made of nothing more serious than paper or buckram and a little glue.

Before the novice has made half a dozen masks he will begin to develop a technique of his own, and possibly a manner of handling his materials that is altogether different from anyone else's. Just how he works will make no particular difference, so long as the result holds together, is easy to wear, and has the effectiveness on the stage that all good masks must have.

Here, then, are some of the methods of making masks, not laid down with Mede and Persian finality, but for experimentation until the beginner has found that which best suits his purpose.

The first method uses little strips of paper, glued together and shaped over a mold.

The design for the mask is modelled first in clay. It need not be hollowed out on the inside to fit the wearer's face, but the dimensions of the outside and the location of the eye and mouth openings must be carefully determined by measurement of the wearer, with allowance for the thickness of the finished mask. Use callipers for measuring, if you do not trust your eye. The clay may be any kind of artificial clay that does not dry out, and can be used again and again. It will help in the finishing of the mask, if the eye and mouth openings are either cut very deep or raised very high. There must be no under-cutting; that is, there should be no overhanging edges that will prevent the clay's being easily separated from the plaster mold, the next stage of events, or, later on, will interfere with lifting the mask itself out of the plaster mold.

The plaster cast is simple to make. When the clay model is finished, buy about fifty cents worth of plaster of Paris, and mix a few handfuls of this in enough water to form a thin paste. Now work fast, for the plaster sets almost instantly and the first coat must be applied while it is still fluid, so as to reach all the crevices of the clay model. The approved method of applying this first coat is to shake it on from the fingers or from a whisk broom, in order not to run the

risk of flattening out the design by pressing with the hands. By the time enough plaster is mixed for the rest of the mold, the first coat will be set.

Make this second mixture a little thicker. Add it to the first coat like frosting to a cake, up to a thickness of about one inch. Now mix excelsior into the rest of the second plaster mixture and smear it on. It is quite safe to use your hands by this time. The mold should be about three and a half or four inches thick altogether, with a flat place on the top so that it will not rock when it is reversed and set down.

Let it stand about twelve hours to dry. When it is entirely dry, pull the clay out carefully, a little piece at a time, so that the mold will not be injured in the process. You are now rewarded with what should be a perfect concave mold. This is the foundation many mask-makers use to work on.

If you prefer to build your mask on a convex mold—and no one mask-maker can predict how another will want to work—you can make the mold as follows:

First make a concave mold as just described, except that a little bluing should be included in the mixture for the first coat of plaster. Grease the inside of this mold with a mixture of one part of sweet oil, two parts of soft soap and twenty parts water. Boil this mixture, and allow it to cool a little before using. Apply it to the inside of the concave mold with a brush until the plaster is thoroughly saturated. Remove any lumps of soap that may have remained on the surface. Now fill the mold with a thin mixture of plaster and water, shaking it a little to make sure that the plaster

reaches all the hollows. If, when the mold is full, a little film of water rises to the surface, it is a sign that the plaster mixture was too thin; to remedy this, sift a little dry plaster into the water. Let the mold stand without moving until it is thoroughly dry.

When you are sure there is no dampness left in the plaster, turn the mold over on some thick pieces of cloth, bringing the excelsior side of the original mold uppermost. Now chip away the plaster of this original mold with a mallet and a dull chisel. When you see the layer of blue plaster you know you have reached the danger point; indeed, that is why it was put there —a warning of thin ice. Attack this layer with the utmost caution, though it should come off easily enough, in little flakes, like stale frosting.

When the old plaster is thus removed, you have a replica of the original clay model. You are now at the end of the not very mysterious process of casting. These concave and convex molds are the two kinds on which masks are built. The clay model itself may also be used as a mold, but this requires extreme skill in handling in order not to press the clay out of shape.

All this working in plaster is merely preliminary, "the mold of form." Now the real work begins, and with the apparently trifling process of tearing paper into little strips. There is nothing belittling in the fact that our masks are of paper; so were those of ancient Greece. They are far easier to make of paper than of beaten gold or carved cedar, if not quite so picturesque.

Each mask-maker has his own preference about the

kind of paper he uses, and indeed it is an important matter, for the weight of the mask, the surface texture and the sharpness of the modelling all depend to a large extent on the quality of the paper. It must be soft enough to be perfectly pliant, and strong enough not to tear easily when saturated with glue. As so often happens, the material easiest to hand serves as well as any other, and some of the finest masks are made out of newspaper.

Under stress of an imminent production the writer once set all her acquaintances to work tearing paper for a dozen masks. Time pressed, but the work proceeded with incredible slowness, till it was discovered that the paper was a pile of old comic supplements, and nine-tenths of the time was being spent in reading the "funnies." Then someone had an inspiration and sent to the corner store for all the old papers there. These were printed in Bohemian, and work progressed again.

The paper is torn into strips, a quarter of an inch to an inch in width. When this is finished, melt one part of ground glue in two parts of water, until dissolved. The amount of glue is an important factor, for if there is too little the masks will come apart, and if there is too much they will be brittle and easily broken. The right mixture of glue and water will be resilient, after cooling, like rubber, and will let the masks bend slightly without cracking. Ground glue sometimes varies in strength. Pour a little of the mixture into a cup to cool, and try the surface. If it gives easily to the touch, the mixture is right.

Suppose the mask is to be made from a concave mold. The mold must first be greased to prevent the paper and glue from sticking hopelessly to the plaster. Give the inside of the mold a thorough coating of any heavy grease,—undiluted soft soap, bacon grease, automobile oil, or even cold cream. When this is done, take one of the narrowest pieces of paper and run it through the glue, then through two fingers to squeeze out the excess glue. Place this strip lengthwise in the mold and press it down till it lies smoothly. Place another strip crosswise of the mold, and press it smooth in the same way. Continue until all the surface of the mask is covered.

Now begin the process over again, but using wider strips to save time, except where the modelling is so sharp that short pieces of the narrow paper are easier to handle. Be careful not to disarrange the bottom layer of strips. Continue in this way until there are in all about five layers of paper. If the mask is to be tied on with cords, force eyelets through the paper near the edge of the mask just above the line of the eyes. Reinforce these with a little glue and paper, to prevent tearing.

Let the mask stay in the mold until it is dry, then cut out the eye and mouth openings with a sharp knife. Now lift the mask out of the mold. If there has been enough grease used, it should come out very easily. Trim the edges with scissors, and bind the outside edge with adhesive tape and the eye and mouth openings with paper. Rub off the grease and any lumps of glue that may be sticking to the surface, and paint the

mask outside and in with a coating of glue. Set it to dry. The mask is made and ready to color.

Masks made from a convex cast or directly from the clay are done in just the same way, but with each successive layer of paper the modelling naturally becomes a little less distinct. With care, however, the mask can be pulled off the mold after the second layer of paper is dry, and the remaining layers can then be added from the wrong side, but this is always a difficult and dangerous way to work.

There are, of course, plenty of other ways to make masks. One of the commonest uses papier maché. This is forced into a concave mold, and the mask is finished off with strips of paper or cloth to form a smooth lining next to the face.

To make papier maché, tear thin tissue paper into little pieces and stir them into hot glue, until you have a substance like very coarse clay. Add flour or whiting to this till it has a smooth texture, and squeeze the whole mass through the fingers until it is quite free from lumps.

Some make a mash of flour and glue with no paper, or of flour and glue and fine wood sawdust. In every case the process is the same; the mold, after being greased, is coated with a layer of mash.

In the past there has been no limit to the variety of materials used for mask-making; and in the future who knows how many more may be discovered? Masks can be made of cloth strips instead of paper; they can be made of buckram, dampened and forced into a concave mold—sophisticated relations of the Hallow-

e'en masks. There can only be one rule; use the material that will give the best effect, and handle it in the most telling manner. If it leads you into new channels, so much the better. Our theater tradition is not old enough to have become very proficient in these matters yet. There must be discoveries ahead.

A mask before it is painted is a most discouraging affair, but the change that is worked with each coat of paint is reward enough for all the labor. It gradually assumes life and character, and when it is finally hung up to dry, no one could tell that it ever had as humble a beginning as a sheet of newspaper.

The paint used in finishing a mask is usually tempera rather than oil. Tempera comes in powder form, and must be mixed with glue and water to make paint. For mask-making purposes it is well to use a little more glue than usual, about one part of tempera, six parts of water, and four parts of ground glue. Melt the glue, stir the water slowly into the powder, add the glue, and heat the mixture thoroughly before using. The type of colors known as "show card colors", a ready mixed tempora preparation, may also be used, but sometimes a little glue must be added to make the colors take hold on the mask. These are considerably more expensive than the dry colors.

Give the mask as many coats of paint as necessary to cover it so that none of the paper will show through. One or two coats will probably be sufficient. It must be allowed to dry thoroughly between coats; with tempera colors this is only a matter of minutes. Now give it the final coat of paint and the finishing touches

of color; after it has dried, apply two coats of shellac, with thorough drying between.

Shellac comes in two colors, white and orange, and the appearance of the mask will depend largely on which kind is used. The white shellac will have no effect on the value of the colors, but the orange will darken them considerably and give them a warm cast. Both colors may be used on the same mask, the white for the high lights and the orange where the shadows would naturally fall. Rub down the shellac finish to the desired dullness with a little emery powder.

Finish the inside of the mask in the same way, but do not rub down the shellac, as it will be needed for a protection against perspiration.

If the mask is to receive hard wear, it must have a chip-proof surface. Paint it in the usual way, but use varnish instead of shellac. Rub down the varnish very thoroughly, indeed; then recolor the mask, varnish and rub down, at least twice.

An oil finish is put on in the usual way, but without varnish or shellac. The effect of this finish is but slightly different from a tempera and shellac finish, but oil is a little more difficult to handle and takes an interminable time to dry.

The ways of finishing masks are legion. They may even be painted with metallic paint, or with graphite. After being rubbed, graphite makes a dull metallic finish like polished iron. (The formula for graphite painting will be found in the chapter on "Accessories.") Again, masks may be powdered with gold or silver so as to gleam in the light. A little of the metal

powder is shaken out on to a piece of paper and blown on the mask with a soda straw, while the last coat of paint is wet and before the shellac has been applied. The metal powder will hold on oil without a covering.

Anyone who has watched the intense, albeit unearthly, animation of masks under stage lighting must have realized their power for conveying a terrifically exaggerated emotional expression. This is the proper use of masks—the depiction of unearthly moods and superhuman emotions. The aim of making a mask lifelike defeats itself. If it is to be merely a clever imitation of a human face, why a mask at all? It is in the power of masks to transcend the human that their merit lies.

The modelling of masks for the stage should be bold and free. Plane should meet plane sharply, with a well defined joining and the incising deep and clear. Details that will not be visible across the footlights only weaken the design.

It must always be borne in mind, also, that the mask is to be worn. It should, therefore, be as light as possible, and arranged so that it will sit comfortably and firmly on the wearer's face. The most obvious and nearly the oldest of all devices for this purpose is to tie it on with cords. These are fastened through the mask at a point a little above the eye line; if a second set is needed, they should be about opposite the bottom of the nose, that is, approximately two and a half inches below the first set. A wig or some other covering for the back of the head will be needed to conceal the cords.

A more elaborate and more practical mask includes the head-dress and head covering as a part of the mask itself, though they may be made of different materials, fastened on. The advantage of continuing the mask over the top of the head and down the back is that it is far less likely to slip or be uncomfortable. If the mask is made of paper both front and back, it will require two plaster molds, and the two parts may be tied or laced together in such a way that the fastening becomes part of the ornament of the mask. The back part must be thicker than the front, to stand the additional strain. Frequently the head covering is made of different material altogether, when it becomes a pretty problem of ingenuity to fasten the wearer securely into his false face.

The eyeholes often present difficulties. It is obvious that they must be made large enough to see through with ease and must be in the right place. In measuring these distances the callipers will prove a great help. Sometimes the eyes of a mask are an important part of the design, as in the case of large protuberant eyes or eyes of a special color, and then the entire eye cannot be sacrificed to the opening. In such cases the proportions of the mask can be altered slightly, so that the opening for the wearer's eye may take the shape of a wrinkle or crease of flesh under the mask eye. Another way is to make the opening at the side or to cut through only a part of the eye, conforming in some way with the design, so that from a distance the opening will look like a black shadow.

The mouth opening is a much simpler matter; but

if there is to be much speaking through the mask, it will be well to adopt the Greek tradition of a wide open mouth, since papier maché interferes with diction.

No doubt, the technicalities of mask-making sound over-difficult to the beginner, but one may venture to say that when the fear is tracked down it will prove to be nothing more serious than unfamiliarity with the materials themselves. To a woman, who can go through the baffling mysteries of a dress pattern with ease, the idea of doing anything constructive with a plane and a saw is quite amusing. She is so deeply convinced of her inability to manage them that they do not so much as excite her curiosity, let alone any ambition to try them. A man confronted with a loose button is one of the most helpless of creatures. And yet there is nothing in the mental equipment of either that makes the untried craft seem hard. It is merely that it is unknown. So it is with mask-making. Once the difficulties are surmounted, and the first mask an accomplished fact, each succeeding one becomes easier.

Nevertheless, construction is not everything. Design and color and the effect on the audience are far more important than technical perfection. Perhaps this too holds terrors. If so, remember that man has made masks since prehistoric times, and there are plenty of good models not registered in the copyright office. Indeed, there is no art in which a good copy is more excusable.

A true mask-maker, however, is rare. He is born with the art. There are certain qualities that arrive with him in his very cradle. First of all, he has a

sense of design. It drips from his finger-tips like the glue with which he makes his masks. More than that, his is a very special sense of design that sees strange things in human masquerade. He has something of the savage eye, and at the same time he knows both form and color. There is nothing of the commonplace in him anywhere, nor is he slavishly bound by the laws of anatomy. Moreover, he sees his work always from a distance, as though looking toward a perpetual stage across a perpetual pit. This is a bag of tricks, indeed, to come into the world equipped with; but no one knows, until he has tried, what destiny his star may hold.



CHAPTER X

BEHIND THE SCENES

THEATER ORGANIZATION—SYSTEM VERSUS THE PINCH-HITTER—COSTUME STAFF—PROFESSIONALS AND VOLUNTEERS—UNITS OF ACCOMPLISHMENT—ASSIMILATING THE WORKER.

Most theater organizations would drive an efficiency expert insane. They function on personality and perseverance, and very little on system. The work of a theater is a succession of new problems and emergencies. System is a fine thing, when the emergency to be met involves a sudden increase of demand on the working powers, an increased strain on the already established routine of an organization, but emergencies in a theater are seldom of this sort. They are usually something unforeseeable, involving new methods of procedure not to be disposed of by system. They may never arise

again, but they must be met with promptitude and wisdom, and so the theater has proved the ideal place for the pinch-hitter. He will succeed in an organization like the theater when the man who cannot see beyond his system would fail. The driving force of personality and imagination will accomplish more than the minutiæ of system, especially when, as in the case of the theater, the work is not routine.

Nearly every theater organization is built up around one or more such pinch-hitters, and the result is good just in proportion as these individuals are capable. But take away the pinch-hitter, and unless another can step in to fill his place, his sphere of activity tumbles like a pack of cards. Here is the flaw in such organizations; and this is as apt to be true in the costume department as in any other part of the theater.

The costume staff in its largest sense usually consists of the designer, the head of the workrooms who oversees the sewing and dyeing, the wardrobe mistress and the workers. The head of the workrooms is a go-between to interpret the artist's ideas and superintend their execution. The wardrobe mistress has charge of the costumes and their repair during the run of the production, and is responsible for their storage when the run is over.

The staff will, of course, vary in different organizations. Sometimes the designer will also oversee construction, or the wardrobe mistress will be sewing woman and master of the dye-pots all in one, and often the brunt of the actual labor will be borne by volunteers. But whatever the arrangement, the work to be

done is much the same. There must be someone to do the designing, someone to see that the workers understand the designs, and someone to care for the costumes when they are made.

The keystone of the organization is, oddly enough, not the designer, for the art schools are full of them, and not the seamstress, for the telephone book lists them by the dozen, but the person who is artist enough to put art into her work and workman enough to show others how to do the same. She will know how to do a little of everything from drawing to sewing on snappers, and will have the ability to gather and direct a staff. With the designer she will be responsible for the costumes. She is the pinch-hitter of her department, and much of the quality of its work will depend not alone on her ability to meet the exceptional emergency, but on her power so to organize her staff that it will work with the utmost efficiency.

Each costume department will have its individual problems, but all will be greatly concerned with the purely human problem of the worker. Anyone who relies on the work of others for the success of an enterprise realizes that at its worst this can be a nightmare problem, especially when the work must be done fast. Amicable relations must be maintained, even under strain, and sometimes this will be very difficult.

Usually work will progress most smoothly when the one in charge lays little emphasis on her authority, and merges herself in the group to work as a part of it for the common goal. Much of the costume work is disagreeable, tedious or dull, and if she uses her position

to shun it, her workers also will regard it as something to avoid if possible. Nor must she ask her workers anything that she is not willing to do herself, from keeping appointments on time to splashing herself with dye.

All this is true if the workers are professionals, earning their livelihood, but it is especially significant in the case of the volunteer worker. The volunteer is a sensitive plant, ready to curl up at the first adverse current of air. She is a thorn in the side of many a harassed costumer, whose job depends on her ability to get the volunteer to work. Because she bestows her services, the volunteer often seems to feel she need have no responsibility about her work, no morale, though what she does is usually done to the best of her ability. She fails to keep appointments, fails to do the work promised, generally proves undependable. She remembers always that she is conferring a favor, as indeed she is, but her satisfaction at her virtue often interferes with her accomplishment.

But once she takes an interest in her work for its own sake, no professional attitude could be finer. The volunteer who does the work purely for the love of it, and through such interest has acquired a sense of responsibility, is the best working companion that can be imagined. She brings a spirit to her work that is uncommon among professionals with salaries below the higher ranges. She is an unalloyed blessing, unfortunately rare.

The fact of volunteering implies some interest in the work, and the question whether a volunteer worker will give up at the start or develop into one of the props

of the organization, may depend on the consideration she receives from the head of the department in the first few days. And such consideration will go far toward preventing her from being chilled by the frosty eye the old-timer is always ready to cast at the novice. Anyone feels strange and uncomfortable on coming into a group of people already acquainted and engaged in an occupation that may be unfamiliar. There is no quicker way of making such an outsider a member of the group, and a contented one, than to give her a feeling of responsibility.

Responsibility is curiously tonic, but it must be concrete and definite. The worker must have some particular task to associate with her responsibility, must be made to feel that the organization depends in part on its accomplishment. Morale is group responsibility, and the mere fact of belonging to an organization is not enough to produce it. But if each worker feels that the organization depends in some part on her, a sense of responsibility follows for the individual, morale for the group.

We do willingly that which we do well, partly because we are proud of our ability, and partly because we are interested at the start. Here is a fact that a canny department head can turn to good use. Perhaps there is no better foundation for successful production of any kind than interest. Discovering what each individual does well and keeping her supplied as consistently as possible with the kind of work that exercises her ability will insure a sustained interest and a high production rate.

Theater work differs from that of the majority of mankind in one interesting way; it has definite terminations. When a play goes on, one piece of work is irrevocably done, and those who have participated can stand back and observe its completed form. The business-man, the stenographer, the doctor are involved in a continuous flow of endeavor that can never be seen as a completed unit; their work cannot be periodically passed in review.

This unusual characteristic of theater work has a special significance for the costumer and her staff. They see their work in such form that its final worth can be determined. It is there to look at, like a picture, a unit of accomplishment with no reservations to make judgment pause; and criticism can say with finality, this is good, or this is bad. Such an opportunity for ultimate stock-taking and appraisal is invaluable to the costume staff. They will learn from their mistakes and build on their happy results.

In the first stages of growth of a theater whose sole aim is artistic, the worker as a problem seldom enters into the picture. This is true because all the individuals in the group are actuated by common artistic ideals, and are willing to make sacrifices accordingly. But as the organization grows, it must depend more and more on comparative outsiders, volunteer and otherwise, who have not the same fervor, and with their advent comes the problem of assimilating them so that they will not outweigh and obscure the original aims, and drag the organization down to the plane of routine labor.

When all is said and done, such a theater is founded on an idealism that is never, in spite of the "pep talks" of modern commerce, found in a shoe factory, and without it the whole purpose of the little theaters is lost. A group devoid of it must soon put the shutters up. Intangible, this idealism. Some call it a sense of theater, some the Dramatic Ideal. One name is about as good as another, but anyone working in a group possessed of it cannot but be aware of its power.



CHAPTER XI

COLORS HAVE PERSONALITIES

THE PERSONALITIES OF COLORS—PRIMARY COLORS AND THEIR COMBINATIONS—CONTRAST AND THE COMPLEMENTARIES—BALANCE—NEUTRAL HARMONIES—EMOTION AND THE COLOR SCHEME—ACCENT—COLOR AND THE CHARACTERS

At the close of a lecture on color in dress, a very fat lady approached the speaker. She asked for advice. Her clothes, it seemed, did not suit her. The speaker looked at her yellow waist, her green belt, her red skirt, and mastered a shudder. "Madam," he said, "remem-

ber this: God never dressed the elephants like the butterflies." Then he added that colors, like people, have different temperaments, some quiet and easy to get along with, some noisy and likely to set up a fight. Years later the lecturer met her again—with some fear, he admits, of her anger; but the encounter was pleasant enough. She was dressed neatly and quietly in elephant gray.

Colors have personalities and some of them can produce in us the liveliest reaction. We speak of a person "seeing red" when he is very excited, for red is a very exciting color with a decidedly stimulating effect. This is why danger signals and revolutionary flags are red. The writer once had the misfortune to be sick in a room papered in red, and she knows from the effect it produced on her that the action of colors on the nerves is not fiction.

Arranging colors for a play is like organizing a group of people to work for you. If they are to work harmoniously, you must take their personalities into account. Some persons force themselves on one's attention, and so do certain colors. If you will pin on the wall four squares of colored paper,—red, yellow, green and blue,—you will see at a glance that red and yellow are of this type, but blue and green are quiet and unobtrusive. The red and the yellow fairly leap out; the blue and the green stay quietly in place on the wall. For this reason, the first two are called advancing colors, and the other two receding. On the stage the advancing colors, the reds and yellows, will catch the attention first and hold it longest. They have the



strongest effect on the nerves and they can be seen from the greatest distance. Beware of dressing an unimportant character in red, if you do not want her to distract attention from the leading lady.

These advancing colors have a warm look; they seem to produce heat, so they are also called the warm colors. In addition to red and yellow, with all mixtures of the two, the warm colors include any shade that has a predominant amount of either red or yellow in its composition. When we speak of a warm brown, we mean one that has in it a good deal of red or yellow. The chief characteristic of these colors is their cheerfulness. All the many shades of oranges, yellows, terra-cottas and reds are far more light-hearted and gay than the blues and greens and purples. It is not hard to see what this means to the stage designer; and if he wants a somber effect he will let the warm colors alone.

Colors have weight. Both dark shades and brilliant shades are heavy; it is only the paler tints that are light. We never wear white shoes with a black dress because white, being a light color, makes the feet appear lighter than the head. Weight must be in the right place. Ceilings are a lighter shade than walls in order that they may not give the impression of falling on one's head. And who ever heard of dressing Titania and her faëries in heavy colors?

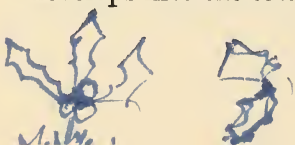
The emotional effect of color is, of course, far more important to the stage artist than its scientific classification. The smell of a flower is more vital to most persons than the Latin appellation. But to understand how to produce the maximum result from colors and to

avoid any disappointing mishaps, the designer should know something of the discoveries that science has made about how colors act on the nerves.

Scientists have divided colors into two classes: those which reside in a ray of light and are seen spread out across the sky in a rainbow, and those which we squeeze out of a tube of paint, called pigment colors.

From the pigment colors of red, yellow and blue, all other colors and shades are derived. These three are called the Primaries, because they themselves cannot be obtained by mixing. In combination the Primaries will produce an infinite variety of hues. Red and yellow, for example, make orange; yellow and blue make green; blue and red make purple. All applied color is pigment color, whether dye or paint, and is subject to the same rules for mixing. The color resulting from the mixture of any two Primaries is known as a Secondary. An equal mixture of all three Primaries would, in theory, result in perfect black, but because of the impurities in pigments the result would actually be a rather unpleasant shade of dirty gray.

When one color is mixed with another, each loses a little of its brilliancy of tone. When two Primaries are mixed, a little of the life of each disappears, and the resulting shade is not so bright as its components. Two of the Secondaries mixed will produce a shade that is still more lifeless, and because of its lack of brilliancy still less likely to quarrel with other colors, and so has been called a neutral. As more colors are added to a mixture, the shade becomes more neutral until it finally develops into the total negative we call gray. A neutral



may be either warm or cold as a result of containing a predominance of warm colors or cold.

In the hands of even the most inexperienced amateur in colors the neutrals are perfectly safe, but there is nothing so monotonous as a color scheme made up of grays and tans. A collection of neutrals is like a gathering of very dull people. But let one of the Primaries be added to such a color scheme, and the result is like introducing an Oscar Wilde into your group of dullards.

Choosing a color scheme is like asking people to a party. If you are going to ask dullards, just any dullard will do, for they will hardly have mental qualities enough even to disagree, but if your assemblage is to be brilliant and your guests have strong traits of character, you will take care that their opinions are not in hopeless discord, but only sufficiently dissimilar to be stimulating. Every strong color will clash with certain other strong colors, and yet with still others it will go perfectly. Red and orange, for example, are not a pleasing combination, but red and blue-green together are perfectly satisfactory. When two colors are in accord in this way, one is called the Complementary of the other.

The physics of the Complementaries is interesting. When we stare fixedly at a spot of bright red for a few moments, the nerves of the eye become wearied by the color, and gradually through fatigue fail to react to the red. Then a new color appears around the edges of the red. This is blue-green, the Complementary. As a matter of fact, our "red spot" is not red. Red is the

one color with which it will have nothing to do. The sensation of color is produced by wave lengths of light, some of which are absorbed by an object, and others thrown back, or refracted. The red object absorbs all the wave lengths except those that produce the sensation of red. As the nerves become fatigued and fail to register red, the eye sees those colors that are left in a ray of light after red is eliminated.

The Primary colors of light, which make up the light ray, are red, blue and green, so that when red is removed by fatigue the eye sees a mixture of what remains, blue-green. The Complementary of yellow, a mixture of green and red, is blue, for when green and red are subtracted from a ray of light, blue remains. The following table sets forth these relations:

Complementaries

Red	Blue-green
Yellow	Blue
Green	Violet

Many a stage artist has had the experience of seeing his colors appear dead even though they seemed, when he planned them, to be exceedingly brilliant. The reason usually is that he does not understand the action of colors upon each other.

Every color tends to throw a little of its complementary on to any other color with which it comes in contact. The cause is not clearly understood, but the fact remains, and for this reason complementary colors stimulate each other. A blue dress on a yellow-haired woman makes her hair appear more yellow, and her

dress, by contrast, more blue. Consequently, the maximum amount of brilliance can be had by using colors with their complementaries. Conversely, colors that are not complementary tend, when used together, to deaden each other. Orange cloth and red cloth, combined in a costume with the intention of producing a brilliant effect, may prove a little disappointing, for the red will throw a cast of its complementary, blue-green, upon the orange, making it look slightly brown, and the orange will make the red appear slightly bluish. The brilliancy of each is reduced.

A color scheme not graced by the use of complementaries is apt to be unpleasant because fatiguing to the color nerves. This is due to lack of balance. One set of nerves is assailed to the point of exhaustion and the others left untouched.

Contrast, not harmony, is the secret of color, but balanced contrast as against monotonous harmony of similar shades and values. The costume designer's problem of balance differs from the painter's in one essential respect. The figures of his picture move about, but the painting remains fixed. The painter can place his colors where they will have the most telling effect, but the costume designer must so handle his that the kaleidoscopic shifting about of the characters will not affect the color balance. He cannot allow himself to think about the individual costume without considering it in relation to all the other costumes on the stage at the same time. He must also be careful to maintain an ordered relation between the colors of the costumes and those of the set, and to keep the color balance in

favor of the important characters so that they may have due emphasis.

We all have a natural sense of color balance, though the fads of fashion have upset it somewhat in matters of dress. We know that a little of some colors goes a long way, and that it takes only a small amount of them to offset, or balance, others. This is frequently demonstrated with slips of colored paper. Take, for instance, a slip of green and another of light gray. Hold these two side by side and imagine they are to be used together in a costume. It will be easily seen, when they are held with equal parts of each color visible, that the combination is not satisfactory. There is too much green or not enough gray. Now lap the gray piece over the green until the proportions are pleasing. It will be found that a large area of gray is needed to offset the green.

A very little bright green trimming will be sufficient on a gray dress. This is color balance. Suppose the dress is not to be gray, but bright green. If the slip of green paper is lapped over the gray one it will be seen that the green dress can be trimmed with a much larger proportion of gray.

The colors that are full of energy, the gay and advancing colors and the bright shades, require a large quantity of lifeless and less active colors to balance them. It would take a great army of inert and spiritless men to be a match for a small band of active and energetic soldiers. A few brilliant costumes against a large area of drab ones are enough to save a scene from dullness.

Complementaries are perfectly balanced. They balance in warmth, in activity and in weight. They are the extreme of contrasts, and they stimulate each other when used in juxtaposition, to the maximum of their force. But few indeed are the color schemes that can rely on the complementaries alone. Their very contrast is their greatest enemy. In most cases they are too stimulating, they make each other too conspicuous. Usually it is better to resort to a less direct contrast, as by balancing a bright or advancing color with a larger area of neutral, or by balancing two shades which have one color common to both. Orange and brown, for instance, both have yellow in their make-up, and are easily balanced.

Sharp contrasts and brilliant colors can be more generally used on the stage, however, than in any other form of decorating, for the stage lights cut down the original contrast of the colors. An amber light on a number of colors reduces their conflict and places them one step nearer to neutrality.

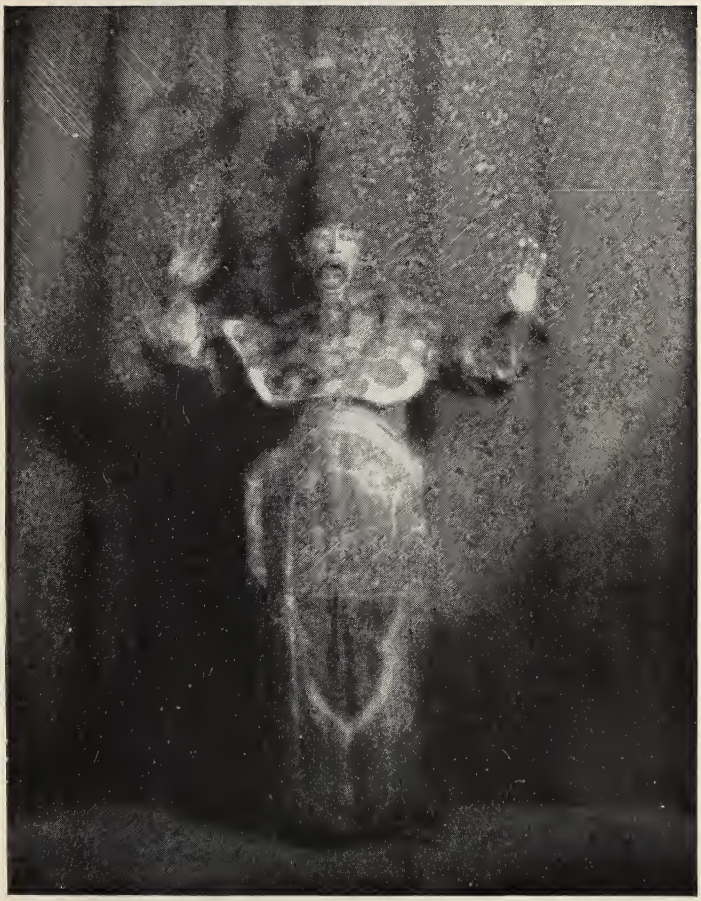
Colors produce emotion. The designer is essentially an interpretive artist, helping the actors to render the play emotionally clear to the audience. The emotional effect of colors lies in the quality of their energy. We say that colors have weight, because they produce in us the sense of heaviness. This is an emotional reaction to the qualities in these colors. Some colors are intense, some gay, some calm, and it can be seen how these qualities will bear out the emotions of the play.

The writer once assisted at a production of the opera "Salome," in which Salome was costumed in pale blue.

The result of this costume was to reduce her to a mere prettiness totally out of keeping with her personality. Moreover, she was lost in the stage picture. Almost every other costume outrivaled hers, and clothed as she was in the color of distance, she faded out against the set. Even her entrances were totally without dramatic force. In another production of the same opera, Salome was dressed in light red, with a very different result. Because the color was warm, advancing, and in its nature dramatic, it adequately rendered her character. It is doubtful if an actor can ever live down the false impression of a clumsy piece of costuming.

Many productions require a color plan that runs throughout the entire play like a pattern. "King Lear" begins with a scene that can well be rendered in the glowing colors of pageantry for no hint of tragedy appears until the third scene, but as the play progresses and sorrows heap themselves on the old man, the tragedy becomes more and more inevitable. At length, lost to the life of pride and power, he moves in a world of shadows. The colors of a certain production were made to follow the descent from glory to obscurity. Gradually, scene by scene, the color was eliminated until at last the king, a shadow of himself, moving in his world of shadows, appeared in a scene that was without any hint of color. Costumes and sets were of a dead flat gray, the color of a life no longer livable.

It is clear that if colors are to be chosen for their ability to interpret the emotions of the play, they will shortly come into conflict with the principle of perfect balance. Sometimes it is altogether advisable for dra-



Norton-Cleveland

ELMER LEHR AS "ALTOUM" IN THE PLAY HOUSE PRODUCTION OF "TURANDOT, PRINCESS OF CHINA."

matic reasons to discard balance. There are situations in which the use of discordant and over-stimulating colors fits better into the scheme of the play. A scene of battle, murder and death may well be produced with terror-inspiring colors that fall within no rules of balance.

We could not, of course, tolerate inharmonies of this sort in our houses. The difference is that we must live in our homes day after day, and they must not upset us, but the dramatic scene is intentionally stirring. A play is quickly over and the eye can stand, and for an evening delight in, colors that could not be tolerated for a day.

But color can very easily be overdone. Some years ago one of the colleges produced a play of light and subtle humor in a black and white set. The set was too much for the play. One scene might have been excusable and even good, but after four acts the writer felt as if she had been staring at one of the wheels of black and white circles that old-fashioned opticians kept in their windows. She remembers the evening as a bad headache.

In general, certain scenes only, rather than the whole play, will require emotion-producing color. Often it will be enough to use color that is simply adequate to the emotions and not in itself an emotional force, or color that is a neutral background to the action. Color must not create a stage picture that will in the least distract the eye and mind from the action of important scenes; but sometimes there are dull and actionless scenes which can be made interesting enough

as a picture to overcome their lack of dramatic action. The best general rule is to eliminate all details of colored design in the dramatic scenes, so that the eye has nothing to deal with but the plain color of the costumes, but to specialize in detail of color and decoration in the dull scenes, when the imagination needs stimulus.

Accenting by color can be applied to the characters just as advantageously as to the scenes. An important character should never be lost on the stage—a thing which too often happens when the stage is full of people. A slight contrast in color or value will distinguish him. A typical incident with which we are all familiar in romantic drama is the stealthy entrance of certain characters at the back of the stage to listen unnoticed to the conspiracy being discussed near the footlights. These characters are often cloaked in so obscure a color that the audience, likewise interested in the hatching of the plot down front, also fails to notice them. But color well handled can shift the attention from one group to another and from one character to another.

There is a certain tendency on the part of the beginner in costume to overdress the principal characters, even when there is not the slightest justification in the play for clothing them better than their fellows. If the leading lady, like Lavinia in "Androcles and the Lion," is one of a mob of Christians marching through the dust, and no better in any way than her companions, there is no conceivable excuse for making her dress more elaborate or costly in material. She must not be lost in the mob, it is true, but she might better

stand out by means of color than by the exclusive use of crêpe de chine.

A stage costume should be composed of few colors, for the same reason that the design should not be intricate. From a distance the eye cannot distinguish between anything but large areas of color, and when two or three are used together in a small pattern they become blurred. The Greek key design is visible from a great distance, but the intricacies and blended tones of Paisley shawls are all but indistinguishable a few feet away.

In connection with color and the costume one is tempted to reiterate the word that so often comes up when the fundamentals of any art are under discussion —suitability. Design is not good design, unless it is suitable to the purpose for which the decorated article is intended.

Dress is intended to decorate the figure. Good color in dress is suitable color, suitable to the shortcomings and fine points of the individual figure and to the personality expressed in the face. It is a fact well recognized in practice that the color of a dress should be suitable both to the occasion and to the occupation of the wearer. But color in a stage costume need not be becoming, because, thanks to the all-powerful make-up box, the complexion is a matter of choice. Eyes are hardly discernible, but hair, be it wig or natural, is a real factor. It enters in as a color to complicate the problem, for it must be considered in the effect it has on the proportion and contrast of the colors in the costume.

The difficulty of dressing well is the difficulty of combining colors. The safest combination of all is in shades of the same color—a whole costume made up of reds and blues, or shades of a neutral, such as gray-green or brown, without the dangerous mixture of a contrast. Such a scheme of harmonies is always satisfactory, for there is no definite accent anywhere on the dress and therefore no danger of the accent being in the wrong place. Neutrals on the stage are, however, of less value than in every-day life, because of their lack of emotional qualities and carrying power. This is true partly because the distance and the softening effect of the lights make large areas of color less vivid on the stage than in an ordinary room, and partly because drama is intensified life, and stage color to keep pace must be a little more intensified than is usual in everyday.

The costume all of one color, even though it be of the brightest, has an advantage over the gown of contrasts. But not all costumes can be solid color. When a contrast is needed, black is the simplest to use, because it is a value and not a color, and so will not contrast with color, but only with the value of the color, that is to say the darkness or lightness. Black is contrast without conflict, which accounts for the universal popularity of the black hat to be worn with all sorts of colors. The extreme contrast of black is white, which is at the other end of the scale of values; and as a color becomes lighter and lighter—nearer to white,—the contrast becomes greater. Contrasts of color are hard to handle well. Extreme care must be used in working

out the proportions of the contrasting colors and in placing the accents.

Fixing the proportions of colors is a matter of determining the amount of precedence to give one or another. If a dress is to be blue and yellow, how much blue and how much yellow? The more evenly divided they are the sharper the contrast will be. But the absolutely even division of two colors, though somewhat bizarre as in the clown's costume, is never beautiful. The men of the Renaissance who wore tights of one color and tunics of another, dividing the figure squarely in the middle, produced the odd impression that their bodies had nothing to do with their legs. Even two closely allied shades or complementary colors are not pleasing when used half and half; the division is uninteresting. The proportion of two thirds to one, or three quarters to one, is far more pleasing; it is interesting to the eye because not so easily measured.

But in this division of colors, beware of having the small fraction outweigh the larger in warmth or intensity. A large red hat with a white dress is top-heavy, because it offends in both ways.

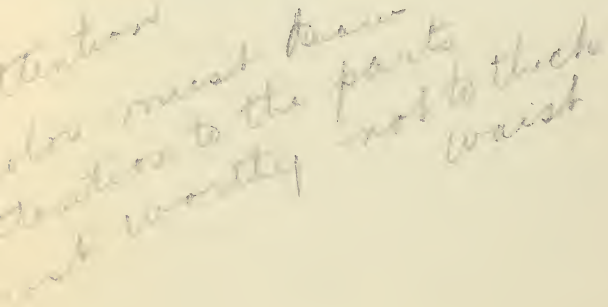
There is, however, something else wrong with the red hat. It is a strong accent and draws the eye at once to the top of the head. A smaller red hat and a little red somewhere else in the costume would distribute attention without distracting it, and at the same time take away the topheaviness.

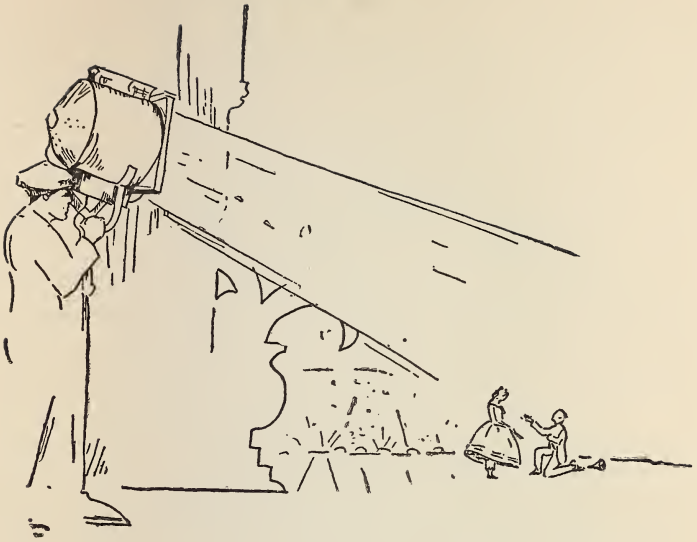
There are certain anatomical reasons for the locating of accents. The face is the natural center of interest and should be most strongly accented. That is,

of course, not a final and irrevocable law. The face must be worth it. Indeed, the writer has seen some cases that justified the drawing of attention almost anywhere else. It is merciful that color will let us practice subterfuge.

Next in importance for accenting are the hands. Sometimes fashion decrees the waist must attract attention, nowadays it is the legs and ankles.

An actress of operatic proportions should not be dressed in advancing colors, if she is to look slim and girlish. Accents must not draw attention to her girth. She must be allowed to become as nearly as possible the color of her background, whatever that may be. Of course, this interferes with the free use of color for dramatic purposes, but fortunately for the designer American casting directors do not favor avoirdupois.





CHAPTER XII

COMPROMISING WITH LIGHTS

REALISM AND STAGE LIGHT—USES OF LIGHT—DISSECTING THE LIGHT RAY—HOW LIGHTS CHANGE THE COLOR OF COSTUMES—LIGHTS AND COLOR VALUES—ELUDING MISADVENTURE.

THE difference between stage light and house light is the difference between art and utility. We light the stage for dramatic effect, and our homes mainly for practical use. Perhaps the day is nearly here when the quantity and color of the light in the home will be part of the interior decorating plan, but at present light as an art is too new to appeal to the conservative householder. No doubt, lighting experts of the future will have as much right to the title of artists as architects

and decorators, but today the stage, always alive to betterments, is doing most to develop the artistic possibilities of electricity.

Gradually, as the capacities of colored light are being realized, the stage is lit with less and less reference to reality. Stage lighting today is not merely a reproduction of nature; it is rapidly developing into a separate and interpretive art, divested more and more of realism. The stage designer, though he has it in his power, is seldom content to imitate the sun and moon. He goes to greater lengths and leaves nature no chance for competition. He illuminates a flight of steps in blue and green, and the figures on them with an amber light. He suits the color of his rays to the mood of the play, and conveniently shifts them about to fit the action.

Helena once wandered through the forest by the light of candles, conspicuously placed to guide her progress. Later she was given the advantage of footlights, a doubtful artistic improvement, but one at least that shed light enough to see her. Now she walks through soft pools of light like the colors of an opal, the source invisible and the quantity dimmed to the value of diffused moonlight.

Beside the purely practical use of illuminating the scene, stage light has two distinct purposes: to aid in creating the mood and atmosphere of the play, and to bring out the utmost physical beauty of the scene itself.

The general lighting plan of the play and the color of the lights for the various scenes are decided before

the play goes into rehearsal, but the planning can hardly go further until the stage is set. Then the quantity and tone of the light will be adjusted to the scene, and the lights themselves so located that their beams will not strike the set in harsh and unpleasant splashes or cast heavy shadows that will disfigure the picture. The lights can be so placed that they will bring out small details of the set to great advantage. A flight of steps, a piece of groining, the inside span of an arch may be caught with a light and made to stand out as an artist touches up his canvas here and there to accentuate little points of interest.

When the costumed figures appear on the stage the finishing touches are added to the lights, and here the lighting becomes most complicated, for it will change continually in color, quantity and location, with the action of the players. Titania enters and a dim white ray falling on her makes her seem to float in moonlight. She is allowed to stay in this diffused radiance until her lines are finished and the interest turns to other characters, when gradually and imperceptibly the accent of light is shifted to them. Possibly in the shifting the light has changed color and, instead of white, become blue and green on her faëry court, with a small quantity of red to give life to Puck's shock of orange hair.

The costume designer so orders the color of his costumes that they will accord with the general lighting plan of the play. The problem is doubly difficult because colored lights change the colors of costumes. In one production the queen's ladies-in-waiting were

dressed in shades of yellow, tan and rose, with a seasoning of blue and green to balance. The proportions of the colors were most carefully planned, but the effect of the lighting was left out of the calculations. As a result the color scheme was a failure. Under stage light the blue had dropped many shades in value and become an unleavened spot of dark that upset the balance of the picture.

Sometimes costume material under lights will actually change to another color. In Act I, the king was dressed in purple. In Act II he appeared in red, and you would be certain he had changed his robe, did you not know the difference was caused by the lights.

We see color in objects by means of the light rays which they refract. A blue dress turns off, or refracts, the blue in a ray of light in the same way that water turns back sunlight. A purple object casts off both blue and red; the green grass throws back only the green. The rest of the light is absorbed by the object and becomes invisible.

A ray of light contains three colors—red, blue and green,—which, seen together in equal proportions, appear white. When the electrician wishes to produce a ray of colored light, he disturbs the even balance of the white ray by taking from it one or more of its colors. He produces a red light by robbing the white ray of its blue and green, a blue light by taking out the green and red, and when he wants amber he eliminates the blue and admits a little of the green, which, mixing with the red, makes it yellowish.

It is hard to believe that white light is composed of

a mixture of the most brilliant colors, until we see the ray disintegrated. This is what happens in the rainbow and in the prismatic glass. The process of taking a ray apart is quite simple. The electrician does it by means of a piece of transparent gelatin paper, which lets through only the colors he wishes. When he slides this paper over a lamp, the light changes color. Blue, for example, is only visible by the blue in the light that strikes it, and so a blue costume is impossible under a pure amber light. No shade of blue can be found that will bear any resemblance to blue under such conditions. The blue color is lost and the costume becomes black. If the gelatin paper is removed, the costume instantly becomes blue again; or if another lamp is turned on, covered with a piece of blue gelatin paper, which excludes the red and green, the costume will likewise again appear blue, for the original parts of the light ray have been pieced together. A very small amount of blue light will bring back the blue in the costumes, but unless the blue is put back into the light in its original proportion the shade of blue in the costume will be darker. The color of a dress changes under artificial light because the proportions of the colors in its ray are not the same as in sunlight.

In point of fact, however, neither the gelatin paper nor the coloring of the costume is quite pure. The blue gelatin paper which should, in theory, exclude all the green and red, actually allows a little of them to pass. The proportion of the escaped colors is small, but they do have a perceptible effect on the costume. As purple is a mixture of blue and red, a blue light

should turn a purple object to the purest blue; and in fact it does, but the blue still has a perceptible amount of red because the small quantity of escaped red is being refracted.

Similar results are caused by the impurity of dyes. It is quite impossible, for instance, to find a red dye that will not refract other colors a little; and when the red is wholly excluded from a light ray, a red object will not turn completely black, but will still have a slight leaning toward color. These variations count for something when the costumer is calculating color.

The way to bring out the utmost value of a color is to light it with its own color. Blue is many times more intense under a blue light than under white; the blue gelatin cuts off the other colors in the light ray and practically prevents the impure dye from refracting anything but blue. On the other hand, to take color out of a costume, light it with its complementary.

Colors change about as follows:

Under a Blue Light

Red	becomes	Purplish
Yellow	"	Brownish
Green	"	Blackish
Purple	"	Bluish

Under a Red Light

Yellow	becomes	Reddish
Green	"	Blackish
Blue	"	Blackish
Purple	"	Red

Under a Yellow Light

Red	becomes	Yellowish
Green	"	Yellowish
Blue	"	Greenish
Purple	"	Brownish

UNDER A GREEN LIGHT

Red	becomes	Tinged with green
Yellow	"	Greener
Blue	"	Blackish
Purple	"	Brownish

UNDER A PURPLE LIGHT

Red	becomes	Brighter and tinged with blue
Yellow	"	Pinkish
Green	"	Blackish
Blue	"	Richer and tinged with red

UNDER AN AMBER LIGHT

Red		is hardly changed
Yellow		is intensified
Green	becomes	tinged with yellow
Blue	"	Blackish
Purple	"	Red

It will be noticed that in the above table some of the colors have actually been changed into other colors, but the rest have merely grown blackish. This shows the two different effects that colored lights have on colored objects. An object that is a fairly even mixture of two colors, such as purple, will not become blacker under a light that excludes one of its two colors; instead it will turn to the color that is not excluded. Purple under red light is red, and under blue light its change to blue is almost complete. This kind of color change may be much more upsetting to the costume scheme than the tendency of colors to turn black.

Pale tints under colored lights are affected in much the same way as mixed colors. Pink does not turn black when red is taken out of the light. The pink disappears, of course, and the material grows imperceptibly gray, but it takes on the shade of the other two colors left in the ray of light: thus, pink material,

when there is no red in the light, becomes blue-green. Colors that are high in value,—pale blue, pale yellow, pink, lavender,—are refracting all the colors in a ray of light, with a little more refraction of one than of the others. Consequently, when the predominating color has been removed the material may gray a little but the other colors will continue to be refracted as before. The pink will become blue-green, that is to say, the color of the light with the red taken out.

This is why pale tints are used when it is desirable to have the costumes pick up the color of the lights. Materials so lit take on an opalescent quality impossible to dye. White will pick up the color of the light in much the same way, but white is flat and lacking in the depth of tone which gives character to the pale tints that are just off white.

The quantity of light that illuminates the costume may have a certain effect on the value of the color, though it will in no way alter the color itself. Anyone who has driven a dark blue car will have noticed that, as night comes on, the color begins to change to black even before the sky has grown quite dark. Though there is still light enough to see objects distinctly, it is quite impossible to tell the color of the car. Colors always lower in value when the light is reduced. The rule, however, only works one way, for beyond the point in light where the color is clearly visible, the addition of light will not raise the value of the color. A powerful searchlight will not turn red to pink, though candlelight may make it black.

On the stage, costuming for a dim light is a ques-

tion of values. Melisande by moonlight must wear pale shades, for medium or dark hues will change so as to make her as dark as the shadows. In night scenes, if the lights are so dimmed that color is lost, costuming must depend on subtle gradations of values from gray to black.

It is easy to see how the drastic changes that light makes in costume color may upset a carefully balanced color scheme. To minimize the chance of misadventure it is wise to keep some sheets of gelatin paper in the dye room for experimental purposes. The perfect plan would be always to dye costumes under the actual lighting that is to be used.

Much depended on the colors of three costumes in a certain scene. The lights were known, the scene already set, and to take a bond of fate the dye pots were dragged out on the stage, an impromptu clothes line hitched to the proscenium, and the work, if done under some difficulty, at least had the advantage of the actual lighting. The costumes were dipped and soaked until they were exactly right. In the light of day it scarcely seemed possible they could be worn together.

When a dress is to be dyed, remember the action of the lights, because they may interfere seriously with the effect of the costume. Think before you spray, and never so much as top-dye without recalling your physics. Then, before it is too late, test the material under a colored light which is as near as can be in proportion and color to the lighting that will ultimately be used.

Difficulty with lights and colors is usually our own

fault. We are reluctant to think a little before mixing a pot of dye. There is nothing very complicated about the action of lights, and their tricks are easy to learn, but the sticking point comes at the effort of applying the rules to the special problem. We know arithmetic, but we hate to apply it to the grocery bill.



CHAPTER XIII

CHARACTER COSTUMING

CLOTHES INDICATE CHARACTER—STAGE TYPES—COMPROMISING WITH CHARACTER—THE SARTORIAL MASK—TYPES AND THEIR CLOTHES—PERSONALITY IN PERIOD DRESS.

THE costume designer takes frequent flights in the realms of Psychology. On these occasions he discusses the people of a play in a manner that sounds more like a psychoanalyst than an artist. He does some assiduous prying into the mysteries of human nature so that he may design clothes which are the perfect expression of personality. For dress is one of the surest indicators of character, and good character costuming will go far toward explaining the people of the play.

The best index to character is supposed to be the face, and there have grown up associations of certain features with certain traits of character. Scientists

tell us there is in reality no such connection, but it will be hard to convince us that a square chin does not connote determination, and a lack of it a certain weakness of character. Science despite, the theory of stage make-up, is based on these convictions.

Association goes still further and finds a connection not only between features and personality, but between clothes and character as well. Mention of a thug calls to the mind's eye a picture of an unshaven fellow with lantern jaws, little eyes too close together, and no forehead to speak of. It also includes a large cap pulled over one eye, a shapeless coat a little too short in the wrists, the collar turned up about the neck. Shabby trousers that do not match the coat and a bulging hip pocket complete the picture. How large a part of the Rogues Gallery actually looks like this may be something of a question, but there must be enough who correspond in whole or in part to have created the composite picture in the public mind. And always, when an actor appears on the stage in such clothes, the audience will know without being told that "dirty work" is afoot.

The costumer must do his share in making the audience acquainted with the stage characters. The play depends on the spectator's accurate appraisal of them, and though it sometimes take a lifetime to know a friend, the characters on the stage must be understood in a few minutes, and clothes can materially aid the understanding through the already established associations.

One asked to describe the mental picture created by

the word "artist," "senator" or "farmer" can go into details without drawing on imagination for a literary touch. And even more than of features, it is a picture of clothes. For the character costumer the value of these ready-made associations is immense.

These standard concepts, however, are types, classes, generalizations, true in the sense that a composite picture is true, but unmodified by individual characteristics. Probably no artist ever looked quite like the artist of popular conception. There will be variations in his attire that will be in themselves significant. Nor are these symbolic types convincing on the stage as individuals. They are too broad, too general, they lean toward burlesque. They must undergo a process of refinement, a filling in, so to speak, of an outline.

The popular picture is there, and must be acknowledged, however much the individual in any group may vary from the type. A real family doctor probably does not look enough like the popular idea to convince the audience. There is doubt if Mr. Coolidge would be credited with statesmanship merely on the strength of his appearance. The character costumer cannot take his portraits from the life. He must begin with the type picture and refine it, give it individuality, make it more nearly real, without losing the broad outlines of the type. There must be this acknowledgment, however false in individual application, of the popular picture.

In real life the gentleman crook may take us in because he looks perfectly honest. He should look honest; it is his best business asset. But on the stage he

must look enough like a crook to be credited with evil-doing.

The artist of imagination, the long-haired, velvet-jacketed betammed creature of Greenwich Village fame is a popular myth. In his place is the real artist, who has had to live down this reputation. He is apt to be rather indistinguishable from an average business man. Neither the real nor the false is good for dramatic purposes. On the stage there will be a compromise dressed in a tweed suit of more than average attractiveness in weave and color, with a tie of conscious harmony. His coat will be loose and comfortable in cut, for he will have no patience with severity either in philosophy or dress, and it will have acquired a peculiar and hopeless bagginess, gone beyond all redemption of pressing and due to much putting of hands in pockets. Cut his hair. There is no reason to believe he wears it long, especially if he has a wife, though he may have acquired a vile habit of mussing it up. He probably has a fondness for an old and impossible felt hat. This picture may not be true, but it will seem true, for it is more nearly what the audience thinks an artist ought to be.

Perhaps the reason why the individual often varies so strikingly from the type is in the desire we all have to be something different from what we are. Almost every person has a secret idea of himself that he strives with more or less consistency to make his friends believe he really is, and for this purpose he wears a sartorial mask. The man whose clothes are blatantly expensive, who wears flashy diamonds and drives a conspicuous car, wants to impress the world with his importance.

The little peroxide blonde hopes by a set of artificial curls to credit herself with the fascinations of a Pickford.

Sometimes the disguise is slight, sometimes very complete; the mask may deceive, or it may be the most obvious of frauds. The important thing is to recognize the mask, for once its nature is understood it becomes transparent. Character costuming amounts to tearing off the mask a little, and letting the audience in on the secret of personality.

Rules and receipts for character costuming are almost impossible to make, for each personality is different from every other; but some generalization is possible. It is true enough for stage purposes to say that the little people who want to appear great wear the most disguise, the ham actor who would be taken for Barrymore, the Soho penny poet, the Hicksville banker's wife on tour, posing as a personage. To hide their ineffectiveness, they dress in what they conceive to be the manner of their chosen rôles.

On the other hand, the man who has gained success feels no need of impersonating it. Newspaper reporters, sent to interview the great, invariably find pleasant, unassuming people, very like everybody else in appearance, undistinguished, indistinguishable in a crowd. The popular idea of the big business man is probably in most cases far from the truth, but it is hard to satisfy an audience with a captain of industry who looks like a bookkeeper. Imagination endows a man with an appearance to match his calibre. And it is certain that kings wear coronation robes, and presidents silk

hats, not from any personal desire to be conspicuous, but because it pleases the people to see their leaders in the trappings of importance.

A poor man wears no mask. He cannot afford to; economic pressure forbids. And the man high in the intellectual scale wears none, for the futility of pretense never fails to occur to the philosophic mind. The tramp and the philosopher show an honest front to the world.

Character costuming depends on gauging the effect of temperament and environment on clothes. That these things have a powerful influence there can be no doubt, though it is beyond human perspicacity to make rules for them. If you know a woman's environment and how she reacts in any situation, you have material enough for character costuming. Jane Clegg is an Englishwoman of the lower middle classes. That in itself limits her dress economically. Her second speech shows you that she is the kind of woman who is greatly concerned with the proper upbringing of her children, her third that she is of a philosophic turn of mind, will accept the ordinary facts of life without useless protest.

Before the first act is half over, you find she is a woman of fine character who has had something to bear from a mother-in-law and a bad husband, and has stood it for years with magnanimity, fighting against the effect on the children. That the struggle has worn her down is obvious. Perhaps she never had a joyous temperament, but she is conscientious, believes in the ultimate good of keeping up her end.

From all this it is certainly possible to make a guess about her attitude toward clothes. They would, of course, be of minor importance. Not the kind of woman to spend much time in front of the looking glass. They would be economical, certainly, quiet and sensible, worn for the life of the material, not for the life of the fashion. They would be neat and immaculately clean, and in spite of cheapness, dignified. She is the type of woman who would never sit in the living room in a greasy kitchen apron, even when life was at its worst.

Jane Clegg is almost a type. There are many like her in all walks of life. Types are a starting point for individuality. There is another type, the temperamentally ineffectual woman whose clothes are no more consistent than her character. She is seldom able to sacrifice prettiness for style, nor is she likely to resist the attractive piece of raiment for the good of the whole costume. She will wear garden hats with tailored suits. Never knowing what type she wants to be,—the vamp, the sports girl, or the ingénue,—she will buy her clothes in imitation first of one and then of another. She will never make the practicality of clothes her first consideration.

The opposite type, the woman of strong character who is highly intelligent and gifted with much charm of manner, is very common on the stage. Ethel Barrymore often finds herself in such a part. This type of woman is well dressed, in a style that is dashing rather than pretty or eccentric. Her clothes are always in flawless taste, always have a dramatic quality of

perfection that makes them stand out from the other dresses on the stage.

This woman has a sister, less gifted in charm than she, but equally a dominating and intelligent person. She is rather blunt in manner and of a very practical turn of mind. She also is well dressed in a different way, for, having an eye to the care of her clothes, she never wears anything too delicate for the occasion. When her budget limits her to a single hat, she is not tempted by the pretty but impractical affair of taffeta and flowers that wilts in the first shower and looks draggled forever afterwards. She always chooses the durable, though possibly unbecoming, one that will stand all weather. Her clothes are ladylike and conservative in the extreme, but they lack the touch of art.

The eye, trained by long experience, reads almost without conscious notice these signs of character in clothes, finds written there not only a table of personality but a description of the environment, the life and occupation of the wearer. But there is a vast difference between merely recognizing the characteristics in clothes when they present themselves and being able to produce these conditions by memory from stored observations. The latter implies mental note-taking and a quickness to see the implication of small details. A man's jewelry is no mean criterion of his character. There may be material for a psychiatrist in a necktie.

Clothes acquire individuality when they are worn. A dress in a store means little, but a dress in relation to a face and the occasion tells a great deal. An old glove is full of meaning. Many facts might be deduced



Eva Le Gallienne as "Mirandola" in the Civic Repertory Theatre Production of "La Locandiera."

from a second-hand pair of shoes, when the same pair, new, would not tell half the story.

Most theater wardrobes have a large collection of old clothes from which they would not part at any price. You never know when the cheap knickerbockers with the hole in one knee will be just what you need, or the other pair, that once were Abercrombie and Fitch and still bear a faint claim to aristocracy in spite of wear and tear, may be just the thing to imply the disinherited son.

Personality in modern clothes depends largely on the innuendo of detail. When we see a man wearing a ring shaped like a lion's head holding a diamond in its mouth, we know something about him. But details in period dress imply very little, because we have not a series of class prejudices about such things as wimples and tunics. We try to restrain our daughters, when we can, in matters of skirt length, but we have no idea whether a fifteenth century girl who wore a twenty-inch hennin was considered really extreme or not, and our historic character studies lose point in consequence.

Human nature, however, must have been much the same then as now. No doubt, the Angevin flapper looked just as nit-wit as ours today; it is merely a little harder to make her so without knowing the idiosyncrasies of her wardrobe. To us certain garments have a special significance. We know what to expect in a turtle-neck sweater or a raccoon coat, but articles of period dress have no such connotations. Nevertheless, personality in historic dress is possible. The good designer has imagination enough to know where to exag-

gerate, where to modify, and with no ready-made associations to build on, he manages to produce a Rosencrantz who differs in personality from his Guildenstern, and he can endow even a ghost with a character.



CHAPTER XIV

CONTEMPORARY STYLE

HOW FASHIONS ARE MADE—PRESERVING THE ARTISTRY—THE DESIGNER EDITS—PROPORTION, BALANCE AND COLOR—THE WELL-DRESSED WOMAN.

The fault in modern clothes is in the wearer. Madam B chooses her new dress because it is the latest trick of fashion, without more than a passing thought about how the lines of the dress or the shade may suit her. To be in the latest fashion is all that she requires. Or, perhaps, she lets herself fall a prey to the persuasions of salesmanship. The fashionable and socially prominent Madam A bought a dress like this only the other day, she is told, and that is enough. What does it matter to her if the dress violates all the laws of design? In

fact its intrinsic worth as a work of art is the last thing that enters her head. No wonder the artists are protesting loudly that modern styles are hideous.

But the birth of every fashion is an artistic idea. The great Paris designers are artists of the highest order. It is only when the designs leave their hands that the trouble begins. One famous designer refuses to sell a dress to a customer, no matter how well she may like it, unless it suits her type and figure. And the designs themselves, the little flares and trimmings and flounces that do so well in the hands of a real artist, are often misused most shamefully by the wholesale manufacturers who employ no real designers to guide them. One imagines the Paris designers regarding with horror the misuse of the styles they have launched. Not one hundredth of the population ever sees the exquisite designs of the Paris houses. We are fed on miserable second-rate work, and no wonder our standard of dress is low.

Here is a chance for the stage designer with a flair for reform. There are potentialities of beauty in every fashion, even the newest, and he can educate his audience by showing them the possibilities of the styles they wear. Indeed, if he has listened to the matinée chatter about the clothes on the stage he will take his responsibility very seriously indeed, and will see to it that the audience is shown nothing of doubtful artistic value. The glamour of the stage is very real to a large number of theatergoers, and to them an actress is no ordinary mortal, but a model of perfection. She is in the limelight of popular approval. Her style and her

clothes are subjects of imitation. If the designer sees it in this way, he can become very serious about his duty to the young idea who thinks there is nothing more wonderful on earth than the actress for whom he is designing.

But in the last analysis it is the public and not Paris that sets the styles. Paris is far from being the autocrat of fashion that the style magazines would have us believe. The most her designers can do is to offer the world a choice, and hope that woman will choose the best. Woman is the real dictator, and if she has taken a fancy for short skirts it is as useless for the designer to try to popularize long ones as for Canute to attempt to halt the waves.

Each season the French designers hold exhibits to show the newest work. These exhibits usually have a wide range of styles with variations of detail that the magazines refer to as fashion trends. These styles do not all become popular by any means. Some may die out altogether and some amount to a mania. Whether or not they become popular rests with the buyer, and the designer himself cannot prophesy their fate. Madame makes her choice, and the clothiers all over the world hold their breath to see what her caprice will make popular, before they set their mills to work turning out the styles she fancies.

The stage designer must also accept the preferences that woman forces on him by her prerogative of choice, and within their limitations create clothes of grace and beauty. If woman has elected to wear small hats and tailored clothes, then he must accept them as the mural

artist accepts the proportions of the wall he is to decorate, and do with them his utmost.

He must pay due attention to popular preferences, making his dresses good design and at the same time fashionable, or else his work will fail.

It is the failure to take these standards into account that has brought so many dress reform movements to untimely deaths. Artists complain that modern styles are utterly devoid of charm, and allow no room for beauty. No doubt, they have said so in every age, and da Vinci may have grumbled when he painted the women of his day who shaved their eyebrows, but his portraits of them were beautiful none the less. We are apt to think our own fashions have not the potentialities that period styles have, but undoubtedly period styles seem more beautiful, because we have only the artist's interpretation to judge them by. Perhaps future generations will think our styles less lovely because, thanks to the photograph, they will be able to see us as we really are, not as the artist could make us.

But in most theaters the costume designer is not called on to design the modern clothes, but rather to act as editor and critic. The original selecting is left to the actresses themselves. Generally, this works out very well, and women of the American stage have proved themselves artists in dress. They may, and usually do, dress with care and distinction, but they sometimes fail to realize the nature of the stage, which demands that dress be different from the clothes of every day. Here the designer's knowledge will be of use.

The same principles of design that govern period

costumes apply to modern dress as well. The rules of proportion and balance and color are equally pertinent. A modern dress, no matter how fashionable it may be, is not good design unless it takes these things into account.

At a dress rehearsal three women appeared dressed in black with cream-colored stockings and black shoes. Light stockings were the fashion and they were worn without a thought about their effect. They made the women look as though their bodies were hung in air with nothing to support them. They were asked to wear stockings of a slightly darker shade to reduce the contrast, and a small amount of neutral shades of corresponding value were added to the dresses to catch the eye and distribute the attention. Such minor things as a light collar, a pair of gloves, a hat facing were enough. It was interesting to see the improvement made by the altering of these small details.

The laws of visibility likewise apply to modern clothes. Small details of trimming will not be visible, and the quality that makes them attractive near at hand will be lost to the audience. A certain actress bought a dress because it was trimmed with bands of Indian embroidery—a frieze of minute elephants amusingly contrived. Otherwise the dress was in no way remarkable. But the elephants could not be seen even so far as the first row, where they looked like rather ugly bands of dark braid.

Stage dresses can well be made a trifle longer than dresses that are worn on the street, for the elevation of the stage makes them appear shorter than they

really are. The outline and fit and hang of a dress are far more noticeable than in an ordinary room, and the least fault will catch the eagle eye of the matinée-goer.

If the designer is to act as a critic, he will find that he must base his fault-finding on something more solid than personal likes and dislikes, for he will be called on to justify his criticisms, at times volubly. He must know what it means to be well dressed and why one woman looks dowdy and another stylish. He must study women's dress until he has made for himself a definition and standard of good dress, and learned to appreciate by comparison those women who have mastered the art. He must keep on until he has acquired the knack of distinctive dress, and can design such a gown, or tell an actress coherently wherein hers fails.

The well dressed woman is never over-dressed. Moreover, though she may be conspicuous because she looks better than other women, she never deliberately dresses to attract attention. She is usually addicted to dark colors on the street, and saves the bright shades for her own home, where the people she sees are her friends and there is no need to put up a barrier of formality. There she may even blossom out in the most lavish colors and patterns, for she can really be herself and give her personality full range.

But even at home she never wears anything to which the word "flashy" might be applied. Her clothes may be colorful and lovely, but they never flaunt. They do not advertise the wearer. They are always self-respect-

ing and restrained, and expressive of as much charm as the wearer possesses. One pictures her attractive, charming and dignified, not necessarily dressed in the last trick of fashion, never extreme but always stylish.

The woman who can give an infallible receipt for style will, we venture to say, be more sought after than he who invents a better mouse-trap than his fellows, and will shortly have the advantages of a broad boulevard leading to her door. But the difficulty about any such receipt is that it must be a generalization, for style may be one thing in a tailored suit and something else in an evening gown, and we are clumsy about applying generalizations. We much prefer being told to take so many parts of this and so many of that, with no uncertainty to make doubtful the result.

Style is an attack of inspiration. It is every woman's heart's desire, and the actual attainment of so very few. Style is more than the latest cry from Paris, it is more than dash and fashion. It is a happy combination of good design, the right occasion and the proper person, and it is instantly recognized and admired.

In the first place, style means a certain self-restraint about buying. It will not do to succumb to the merely pretty, unless, of course, prettiness is what you want and you are willing to sacrifice a certain air and distinction to acquire it. Prettiness is wishy-washy and characterless, the prerogative of stage milkmaids and the ingénue. Style is character, and to acquire it you can well afford to discard the ruffled lace collar that gives you a prettiness, for the neck line that has more force of design. Nor will you buy the hat that is be-

coming instead of that which completes your costume in type and color and shape. It is better to choose the hat that makes the figure as a whole look well than the one that flatters just the face.

Today style is simplicity, almost severity; tomorrow, perhaps, it will be an elegance of ornament and detail. But plain or elaborate, the dress with style will always be the dress that is well designed, and the quality of style will be recognized in a gown after a hundred years.



CHAPTER XV

COSTUME AND THE ACTOR

COSTUME SENSE AND SENSELESSNESS—THE DESIGNER'S VIEW OF COSTUME, AND THE ACTOR'S—DEVELOPING COSTUME SENSE—LEARNING HOW TO MOVE.

THERE is always an element of surprise about the dress rehearsal. Costumes look very different when they appear on the stage. And here is the great incalculable factor about costuming. What will the actor do with his costume when he has it on? Very frequently, nothing at all. Time and again the actor fails to establish any relation whatsoever between himself and his clothes, fails to incorporate them into his stage personality, and thereby loses the unity of his part and throws away one of the most powerful assets at his

command. It is as though, having five senses at his command, he used but four.

In contrast there is the actor who seems to be born with an understanding of clothes. Most, perhaps all, great actors have it. They are able to subjugate a costume, make its every line and fold express their dramatic intention. Such a person is the costumer's joy, for on him the costume will rise superior to defects of design and fit. He is said to have costume sense, and he will stand out in a mob, for he has the knack of endowing even rags with distinction.

There is also the unfortunate person, usually at least one in every cast, who ruins the most beautiful costume by the way he wears it. If he has a sword, he inevitably falls over it; and with a cape he produces unintentional comedy. To say that he is anathema to a long-suffering costume department is putting it mildly.

A few experiences of this sort soon bring home to the costumer the importance of an art not usually given much consideration—the fine art of wearing clothes. It is one of those things often neglected in the little theater because it is not, strictly speaking, the province of costuming, or quite a matter of directing either. But a look at the supporting cast of almost any costume play will demonstrate that it ought to be somebody's business, and clearly the costumer is in a better position than anyone else to start reform. Some say that an actor born without costume sense never acquires it. This may be true of a costume sense like Jane Cowl's, but it has been the writer's experience

that much of it can be acquired, just as the technique of any art can be learned with practice.

There are two points of view always about a costume, the actor's and the designer's. A designer is usually gifted with costume sense, but perhaps he is not accustomed to wearing costumes and does not realize the actor's problems from experience. If this is true, there is a surprise in store for him if he is ever drafted as an actor. He will discover the mixed sensations that always accompany the wearing of unfamiliar garb, and how, under certain conditions, these sensations can rob him of all his self-assurance. He will find out what it means to be irritated beyond expression by a costume that is clumsy or restricting, or hard to manage, and if he is forced to contend with these difficulties night after night under public scrutiny, he will have an altogether new attitude about the actor who is "fussy."

The actor wants above everything else a costume he has confidence in, one that makes him feel his best, that does not hamper his acting. The designer, on the other hand, has a clear mental picture of how he wants the actor to look, and often fails to appreciate the actor's difficulties with his clothes. Here are the makings of a conflict that usually comes to a head in a storm of temperament during the dress rehearsal. Neither side wants to give in, and yet it is certain that an actor in a costume he abhors will never give sign of costume sense. In the end, it will be a case for tact and compromise. The designer will usually find it well to concede a little for the sake of the actor's peace of mind.

The knottier problem is to instill costume sense where there is none. Costume sense is, to an extent, costume consciousness, an awareness of what you have on. A Pekinese has it, when he goes for a walk with a blue bow around his neck. He perks his head and regards the world with a somewhat haughty eye. But costume consciousness is more than perking up. It is the knack of knowing, without being self-conscious, how your costume disposes itself, the art of feeling yourself and your costume one. Costume sense is the power to subjugate the line and mass of the costume to the dramatic expression, to make your clothes a part of yourself, as though you had no other anatomy than their folds.

Acquiring costume sense is largely a question of learning how to move. But it is more than that; it is learning how to move in relation to the costume. In a hoop-skirt the grace and freedom of Diana's stride would be grace no longer. Each period has had its characteristic gestures and its distinctive pose. This is partly because people, like the Pekinese, "play up" to clothes, and accentuate by pose and gesture those features which the clothes of the time display to best advantage. The low neck and the tight bodice of Victorian days enhanced the curve of a comely neck, and woman, quick to make the most of it, arched her neck and bowed her head. Or was it the other way about? Were meek bowed heads first in fashion, and did the design of neck and bodice follow, to make humility more charming? Whichever way it happened, the gesture is characteristic of the costume and makes the ut-

most of both dress and wearer. In Elizabeth's time feminism was in the throne; women's heads were high—unless they happened to be bowed over the headsman's block; and women reinforced their gesture of arrogance with a stiff ruff, convenient garment to make the head seem more solidly attached in those days of unstable heads.

Unless an actor is innately awkward—and in that case he will hardly continue an actor,—learning to move in terms of costume is mainly a question of practice. With constant rehearsals of costume-wearing he will come to avoid thinking of his clothes to the detriment of his acting, and his gestures and movements will become practically unconscious, an instinct always at his command. Many are the unfortunate ladies in waiting whom the writer has led back and forth across the stage, with a sheet pinned to shoulders to represent a train, and who have walked and walked until they have learned to feel the train in every part of their bodies, until they have come to forget for the moment that they are wearing knee-length skirts and sweaters *pour le sport.*

The danger that it will be spoiled in the wearing is but one of the many misadventures which hover over every step of costuming from the making of the sketch to the fall of the curtain. But a successful piece of costume work will compensate for all the trials. When a costume has escaped the many pitfalls, and appears on the stage, well designed, well made, well worn, in harmony with the play and the character, it brings the

satisfaction and pleasure that comes with every successful work of art. The perfect coördination of dress with actor, character and play is the climax of stage costuming.



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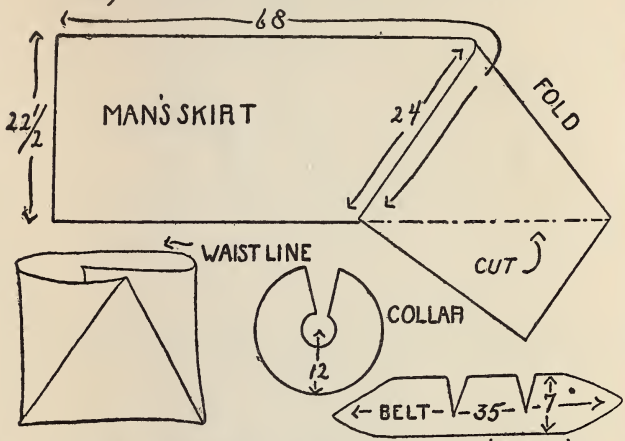
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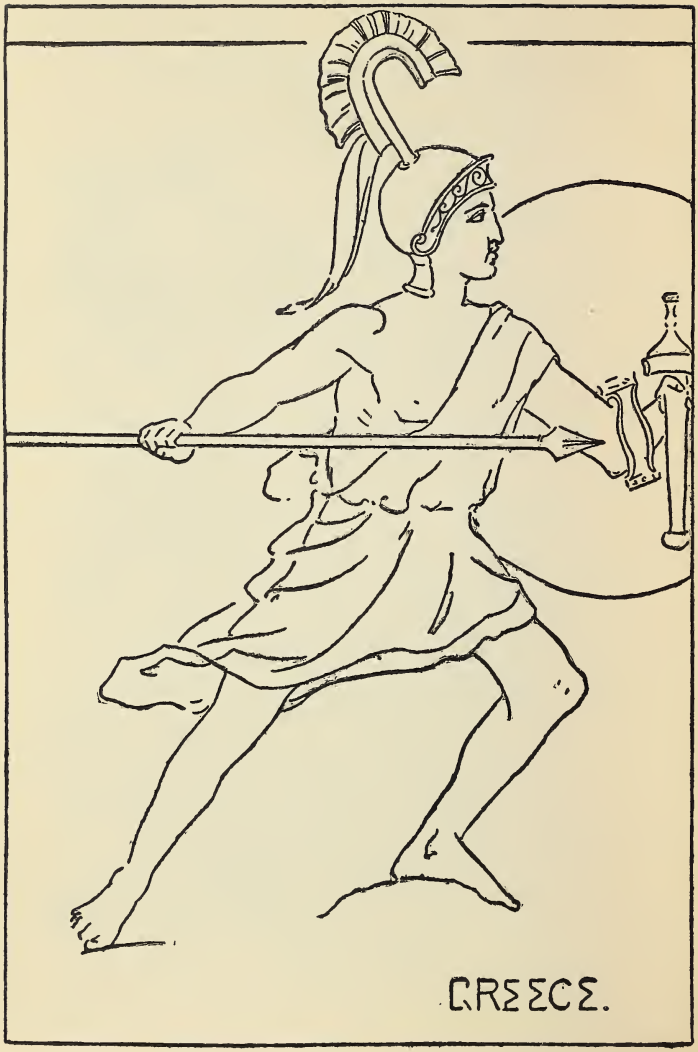


Egyptian Man and Woman -

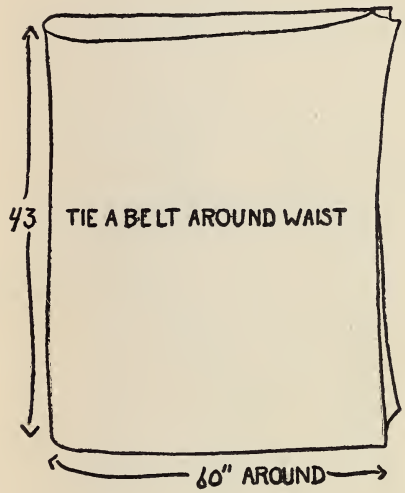


TO DRAPE WOMAN'S DRESS

FASTEN A BELT AROUND WAIST. TAKE A PIECE OF GOODS 5½ YDS. LONG AND 40" WIDE. TIE A CORNER TO CENTER FRONT OF BELT. PASS LONG EDGE AROUND LEFT SIDE & AROUND TO FRONT AGAIN. GATHER SOME FULNESS & PIN TO CENTER FRONT OF BELT. THEN PASS THE REMAINDER OF THE GOODS TWICE AROUND THE FIGURE, TOWARD THE LEFT, FIRST AROUND THE HIPS, SECOND AROUND THE BUSTS, TO THE BACK THEN, BRING IT OVER RIGHT SHOULDER & LET FALL LOOSELY ACROSS CHEST IN FRONT, AND THROW THE END OVER LEFT SHOULDER AND ARM, AND ALLOW TO HANG DOWN IN BACK.

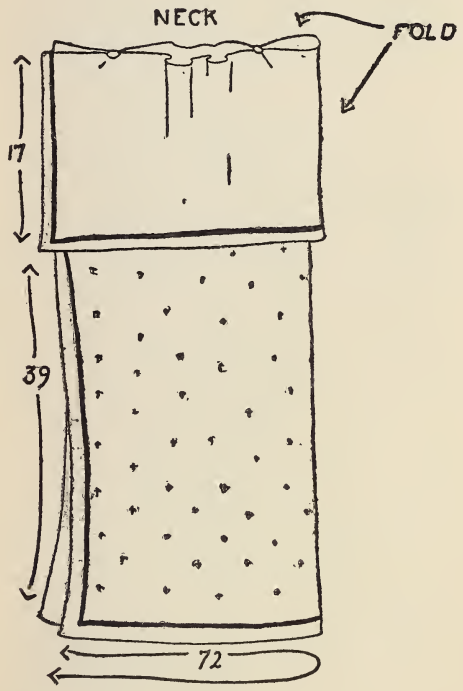

GREECE.

Greek Tunic




GREECE

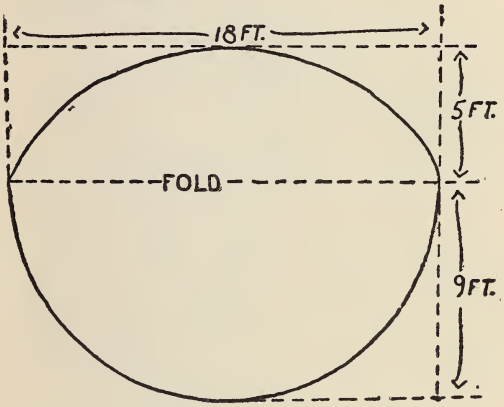
Greek Chiton

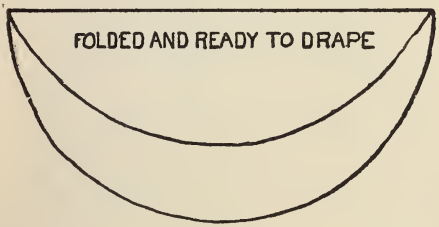



·ROME·

-Roman Toga-

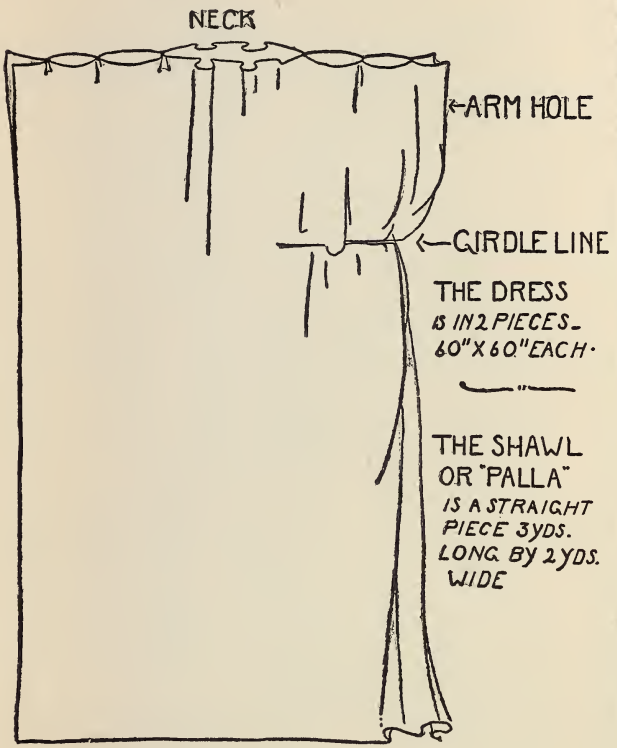
THE TOGA IS AN IMPERFECT CIRCLE FOLDED AS INDICATED· PLACE FOLDED EDGE ON LEFT SHOULDER WITH POINT DRAGGING ON GROUND IN FRONT· BRING ACROSS BACK AND UNDER RIGHT ARM, WITH FOLDED EDGE UNDER ARM PIT; THEN AROUND TO FRONT· THROW WHOLE GARMENT OVER LEFT SHOULDER AND ARM AND ADJUST TILL POINT CLEARS GROUND IN BACK· REACH UNDER FOLDS AND PULL UP PIECE ORIGINALLY LEFT HANGING IN FRONT AND FORM A LOOP AT BELT AND ADJUST TILL POINT CLEARS GROUND· TOGA IS WORN OVER A TUNIC· SEE EARLY CHRISTIAN·





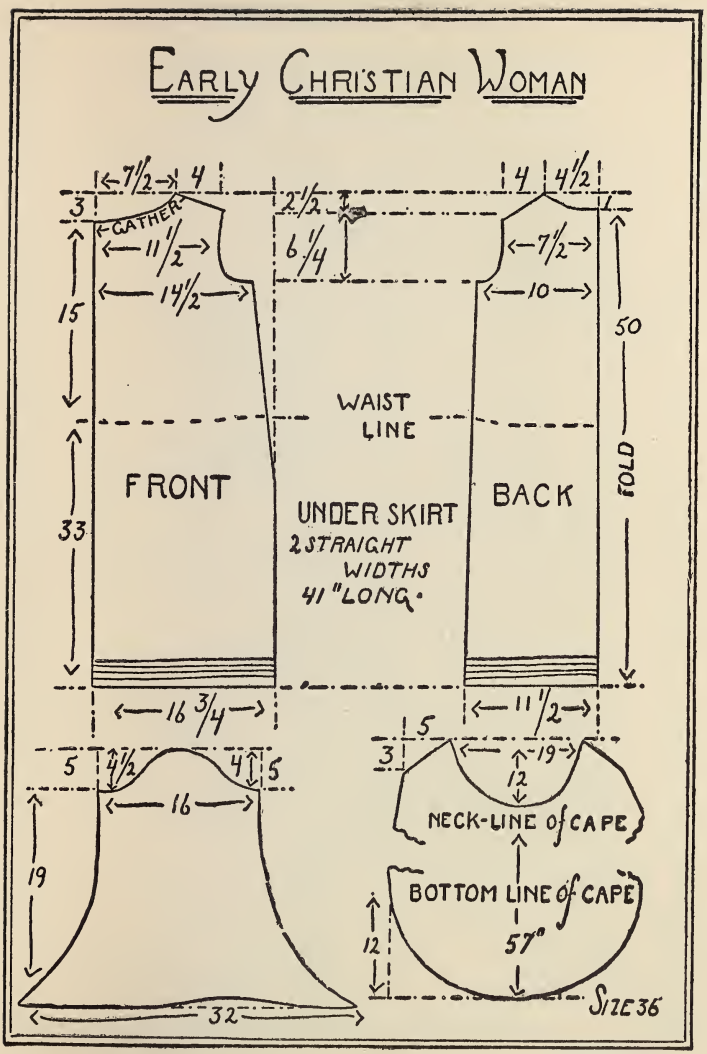

·ROME·

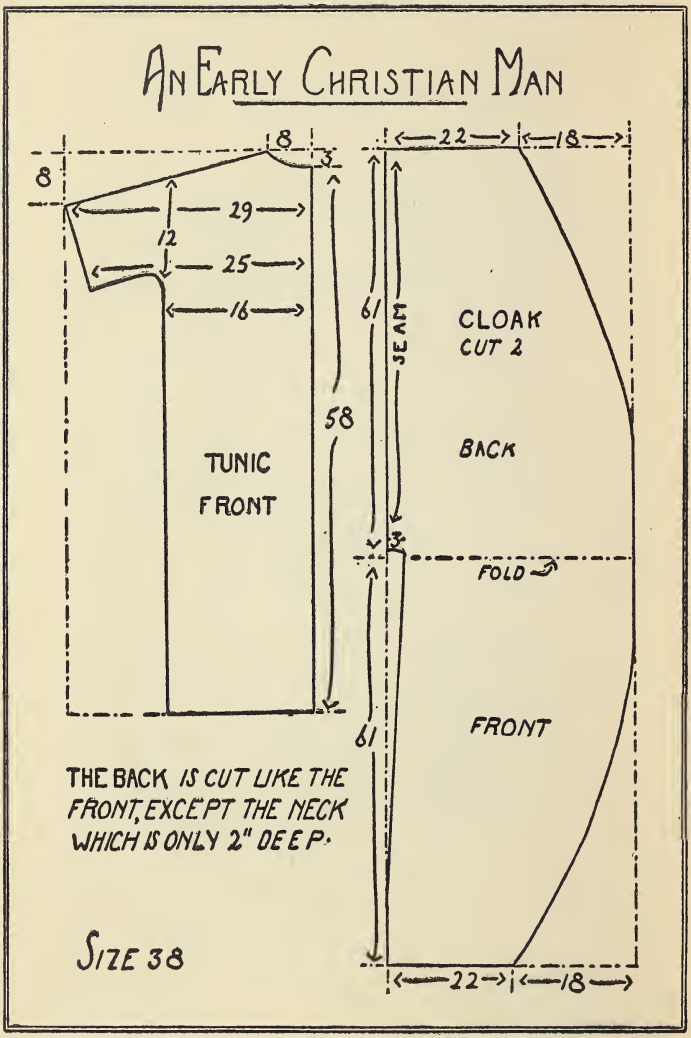
Dress of A Roman Woman



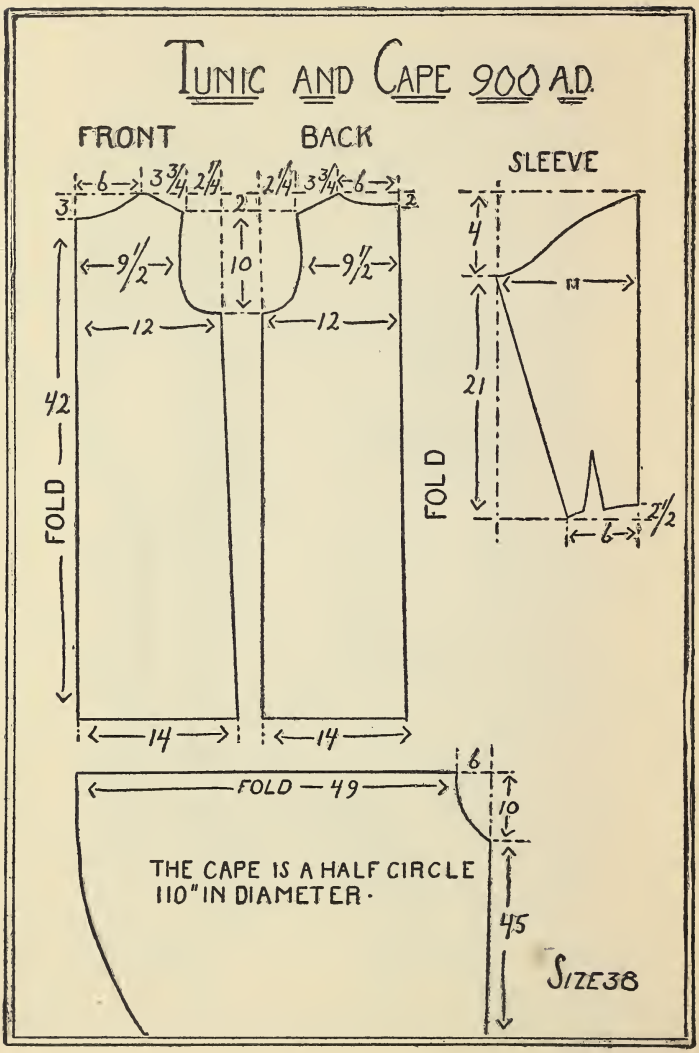

·EARLY
CHRISTIAN·

Early Christian Woman



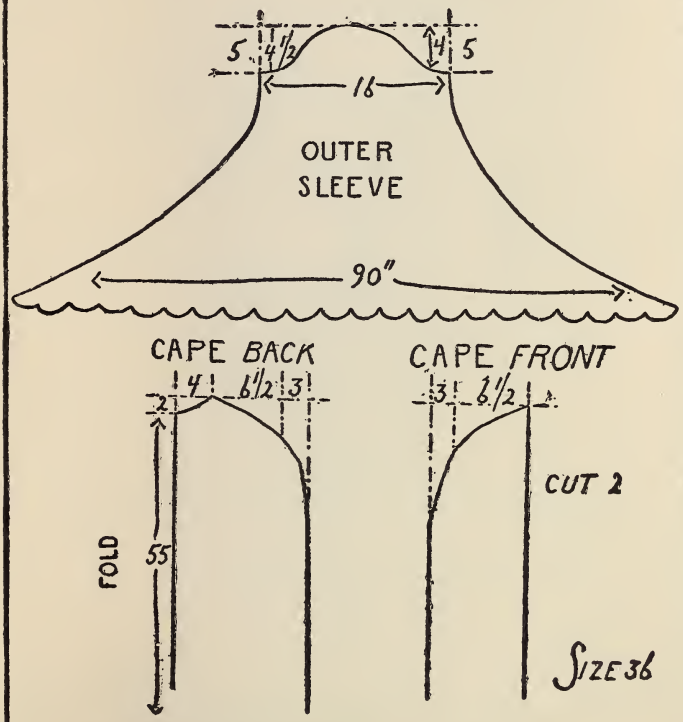

AN EARLY CHRISTIAN MAN
8
8
3
29
12
25
16
58
TUNIC
FRONT
22
18
61
SEAM
CLOAK
CUT 2
BACK
3
FOLD
61
FRONT
THE BACK IS CUT LIKE THE FRONT, EXCEPT THE NECK WHICH IS ONLY 2" DEEP.
SIZE 38
22
18

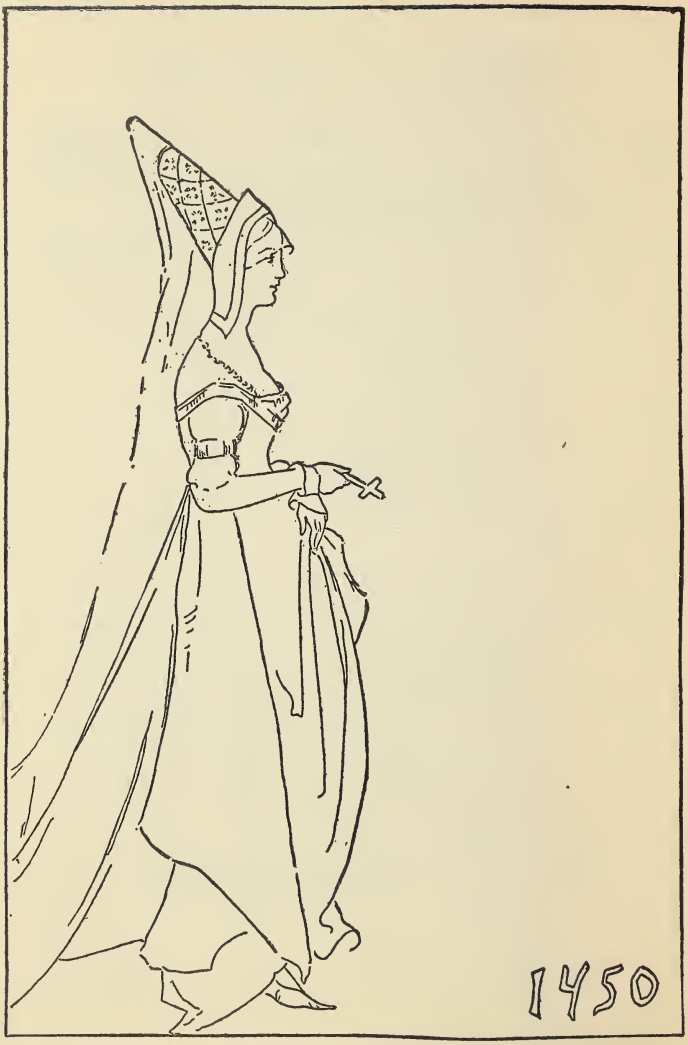

A.D.
900.

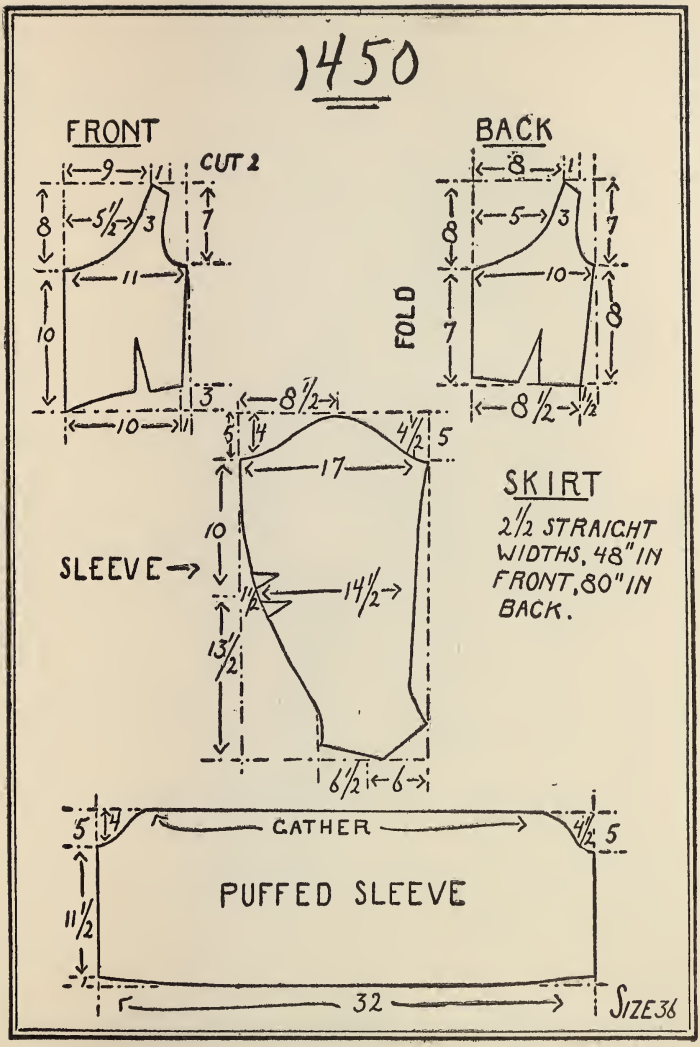

TUNIC AND CAPE 900 A.D.
FRONT
BACK
SLEEVE
6
3 3/4
2 1/4
2 1/4
3 3/4
6
3
2
2
4
9 1/2
10
9 1/2
12
12
21
42
FOLD
FOLD
14
14
2 1/2
6
FOLD — 49
6
10
45
THE CAPE IS A HALF CIRCLE
110" IN DIAMETER.
SIZE 38

A DRESS of 900 A.D.

WAIST *USE FITTED WAIST PATTERN IN CH. IV.*
SLEEVE *USE FITTED SLEEVE IN SAME CHAPTER*
SKIRT *2½ STRAIGHT WIDTHS 34" LONG.*
GATHER TO HIP-LINE.

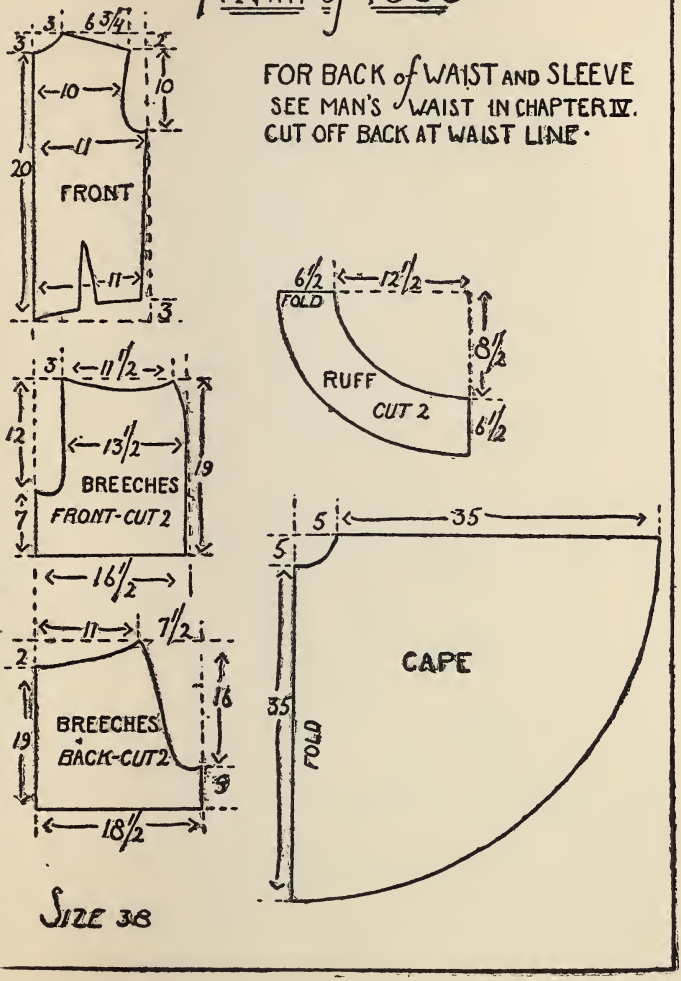



1450

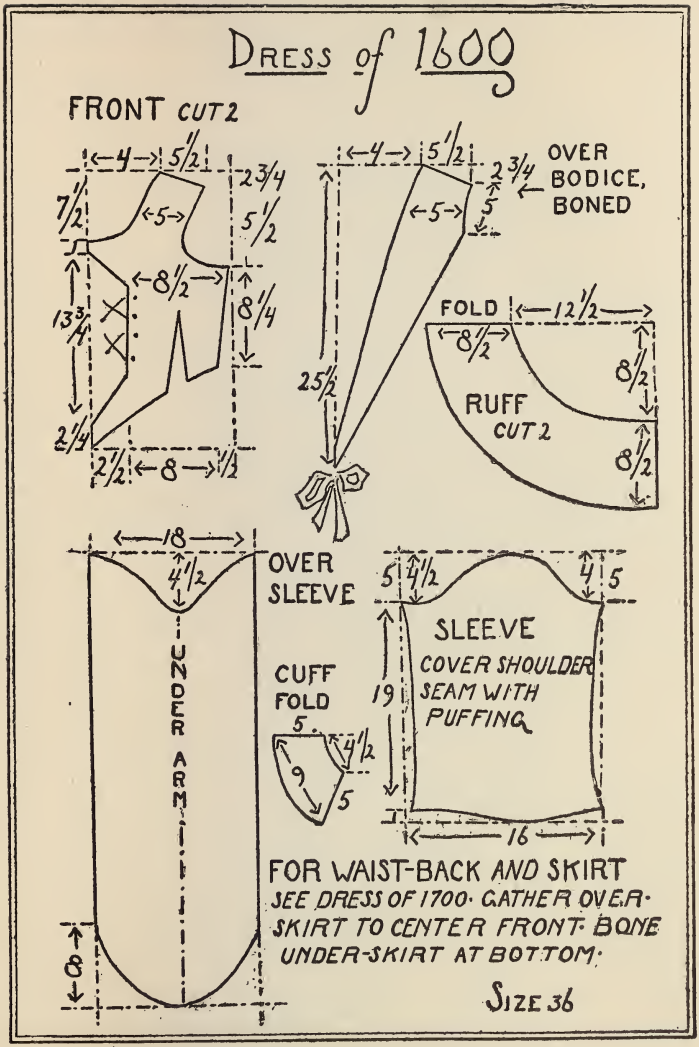

1450
FRONT
CUT 2
BACK
FOLD
SKIRT
2½ STRAIGHT WIDTHS, 48" IN FRONT, 80" IN BACK.
SLEEVE
GATHER
PUFFED SLEEVE
SIZE 36

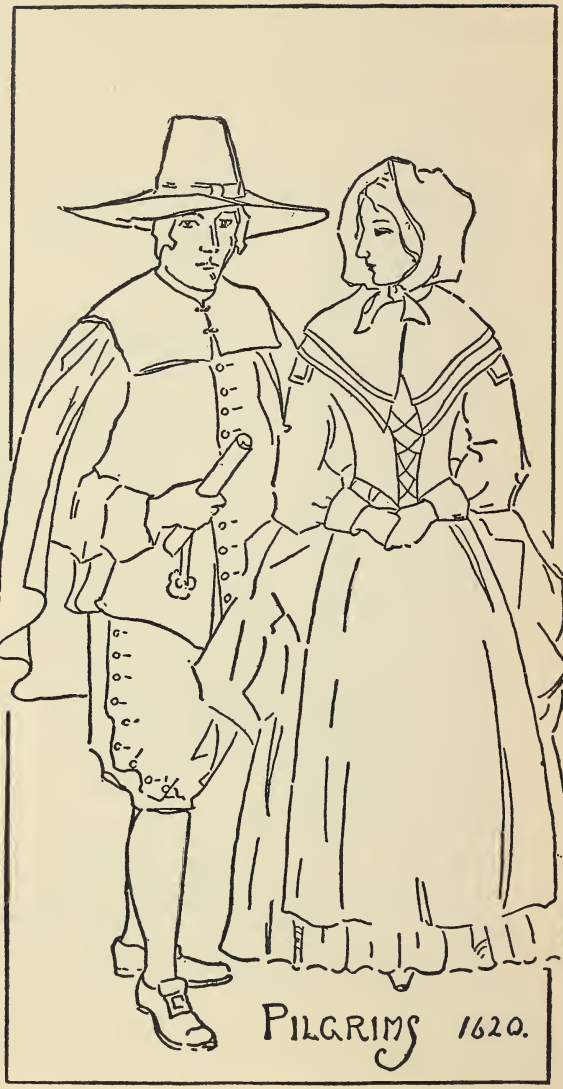

1600

A Man of 1600

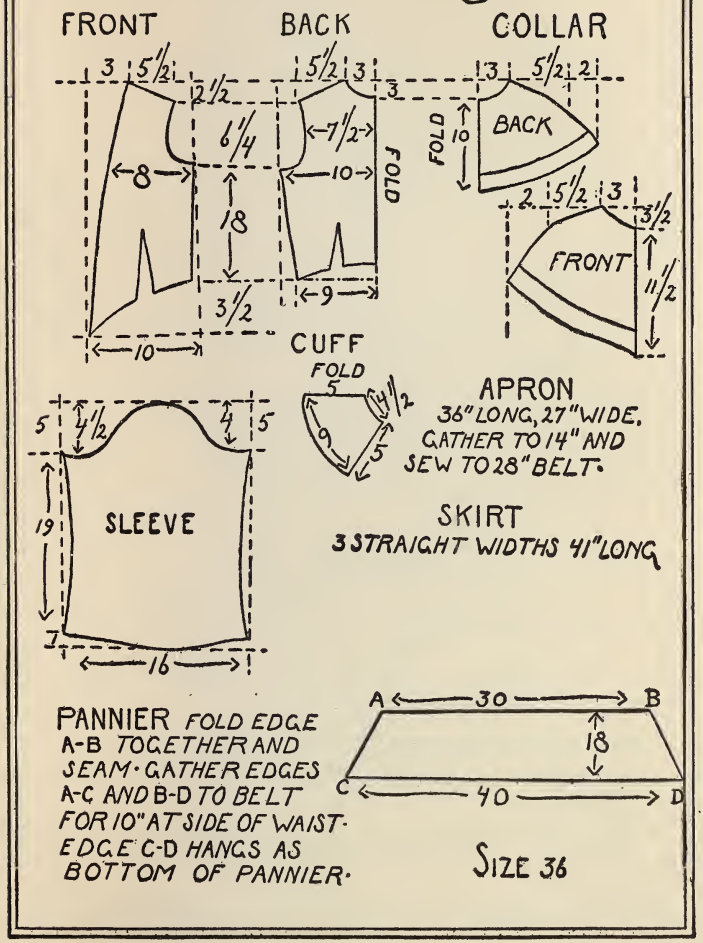

FOR BACK of WAIST AND SLEEVE
SEE MAN'S WAIST IN CHAPTER IV.
CUT OFF BACK AT WAIST LINE.
FRONT
BREECHES
FRONT-CUT 2
BREECHES
BACK-CUT 2
RUFF
CUT 2
FOLD
CAPE
FOLD
SIZE 38


1600

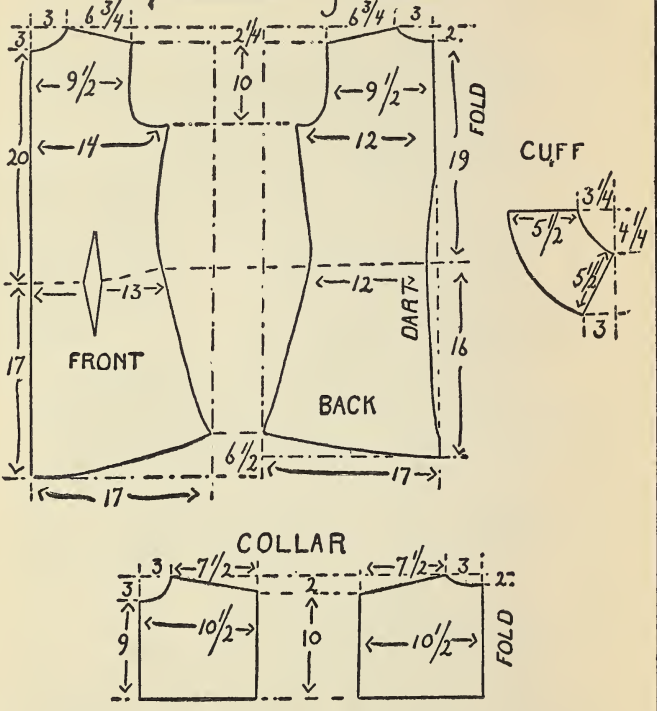

DRESS of 1600
FRONT CUT 2
OVER BODICE, BONED
FOLD
RUFF CUT 2
OVER SLEEVE
SLEEVE
COVER SHOULDER SEAM WITH PUFFING
CUFF FOLD
UNDER ARM
FOR WAIST-BACK AND SKIRT
SEE DRESS OF 1700. GATHER OVER-SKIRT TO CENTER FRONT. BONE UNDER-SKIRT AT BOTTOM.
SIZE 36


PILGRIMS 1620.

A Pilgrim Dress



A Pilgrim of 1620

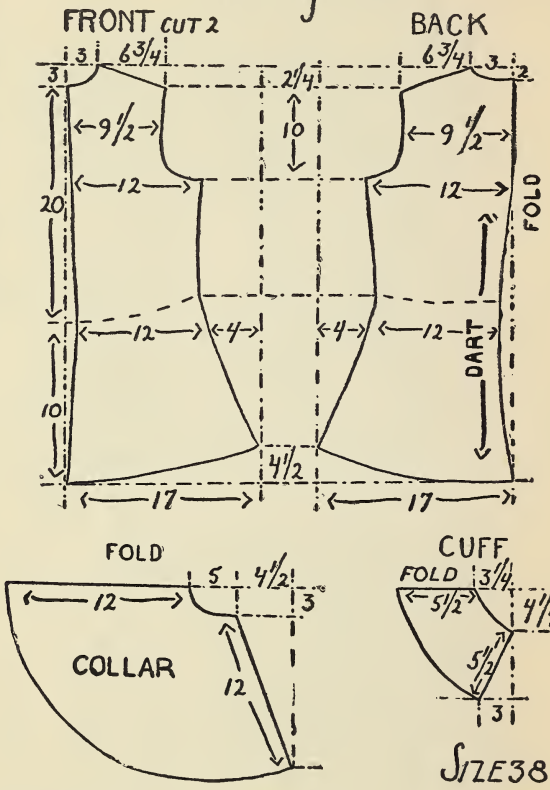


FOR SLEEVE AND BREECHES - SEE CHAPTER IV.
CUT BREECHES 13" WIDE AT BOTTOM AND PLEAT INTO KNEE-BAND
THE CAPE - 2 STRAIGHT WIDTHS LONG, GATHERED AT NECK

SIZE 38

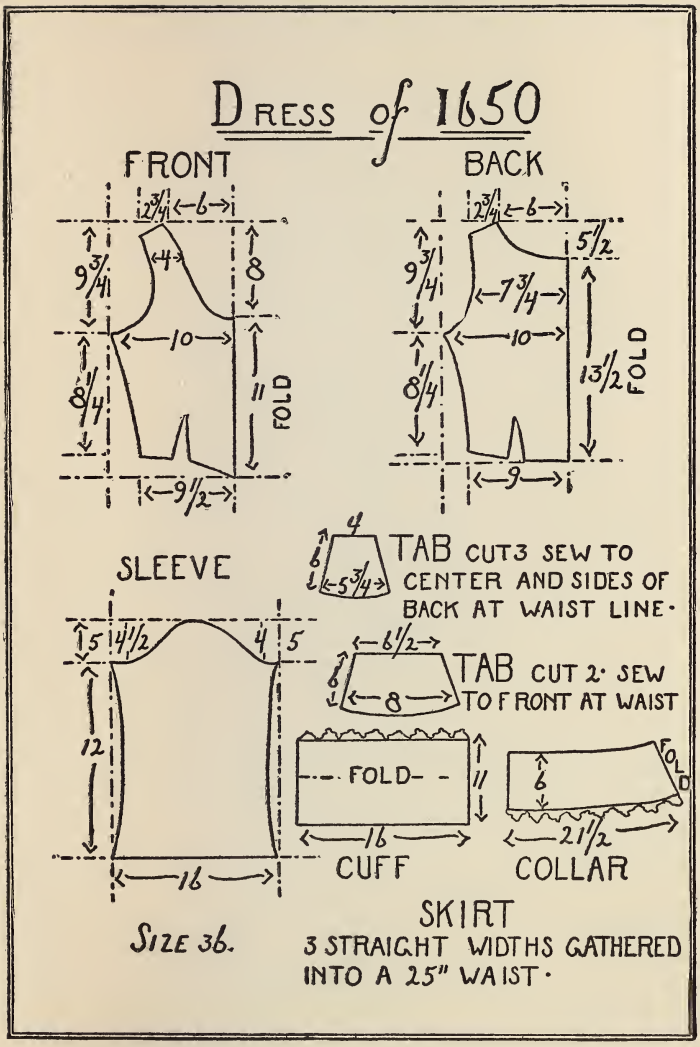

1650

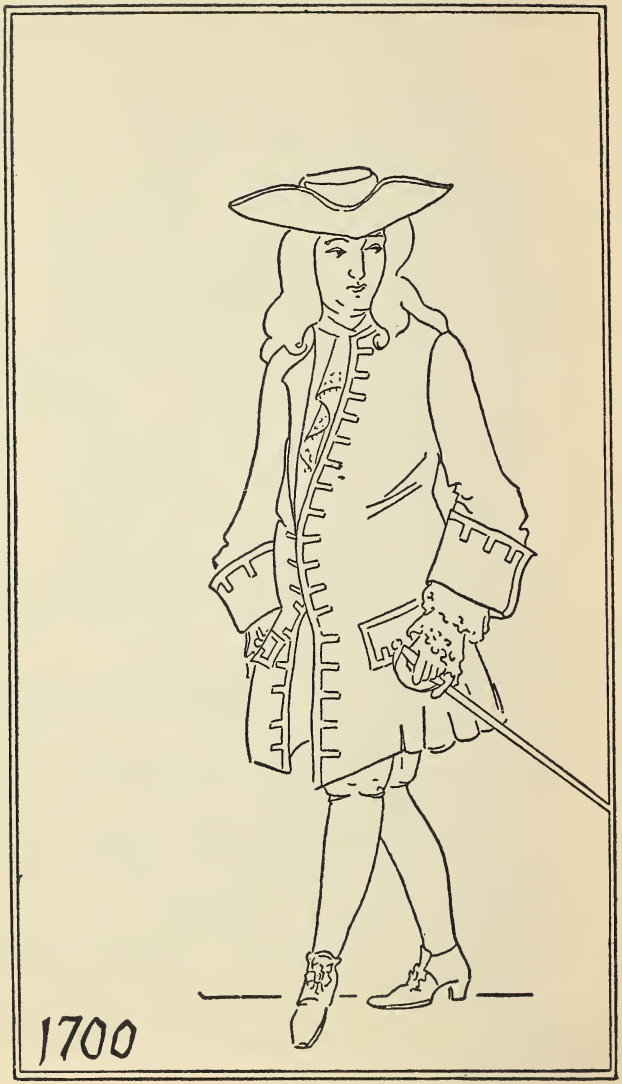
Man of 1650



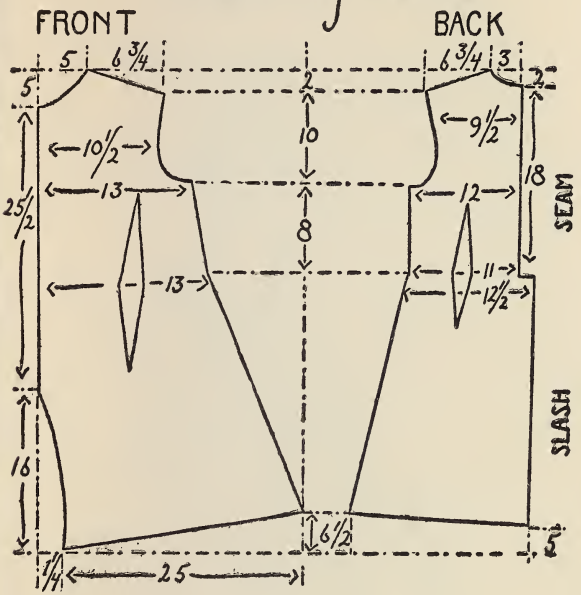
SIZE 38

FOR BREECHES *AND* SLEEVE, *SEE BREECHES AND LOOSE SLEEVE PATTERNS IN CHAPTER IV.*

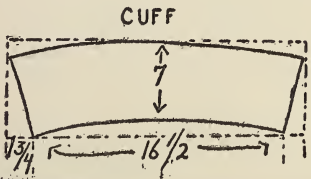

DRESS of 1650
FRONT
BACK
SLEEVE
TAB CUT 3 SEW TO CENTER AND SIDES OF BACK AT WAIST LINE.
TAB CUT 2. SEW TO FRONT AT WAIST
FOLD
CUFF
COLLAR
SKIRT
3 STRAIGHT WIDTHS GATHERED INTO A 25" WAIST.
SIZE 36.


1700

A Man of 1700



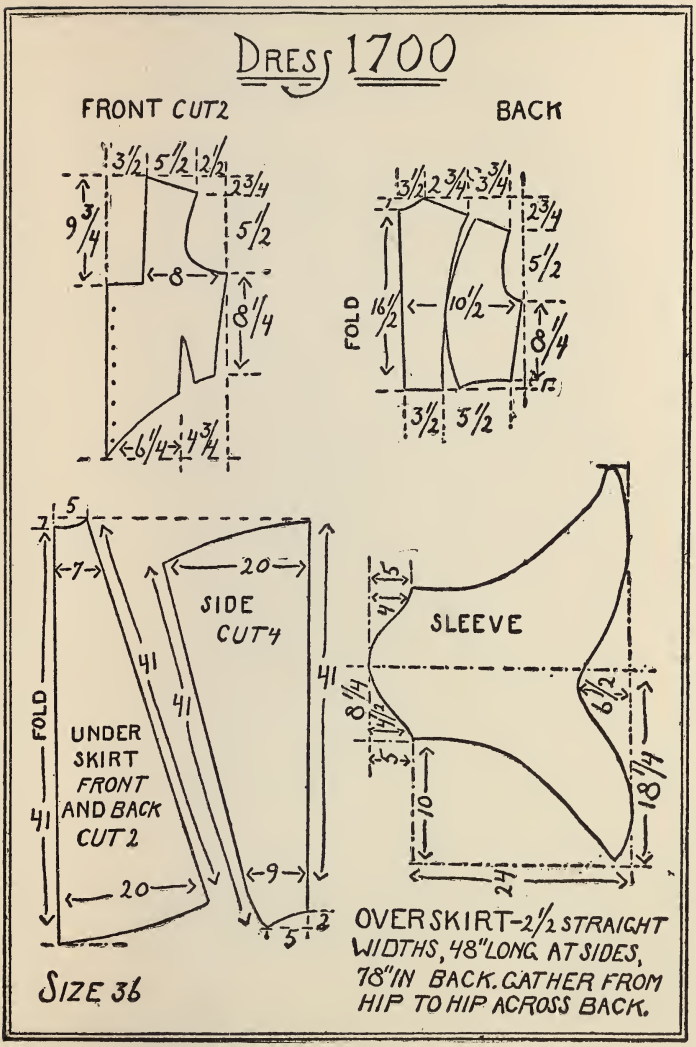
FOR BREECHES AND SLEEVE SEE CHAPTER XI.
USE LOOSE SLEEVE AND CUT 2" SHORTER AT BOTTOM BEFORE APPLYING CUFF. SEW LACE TO INSIDE OF CUFF.

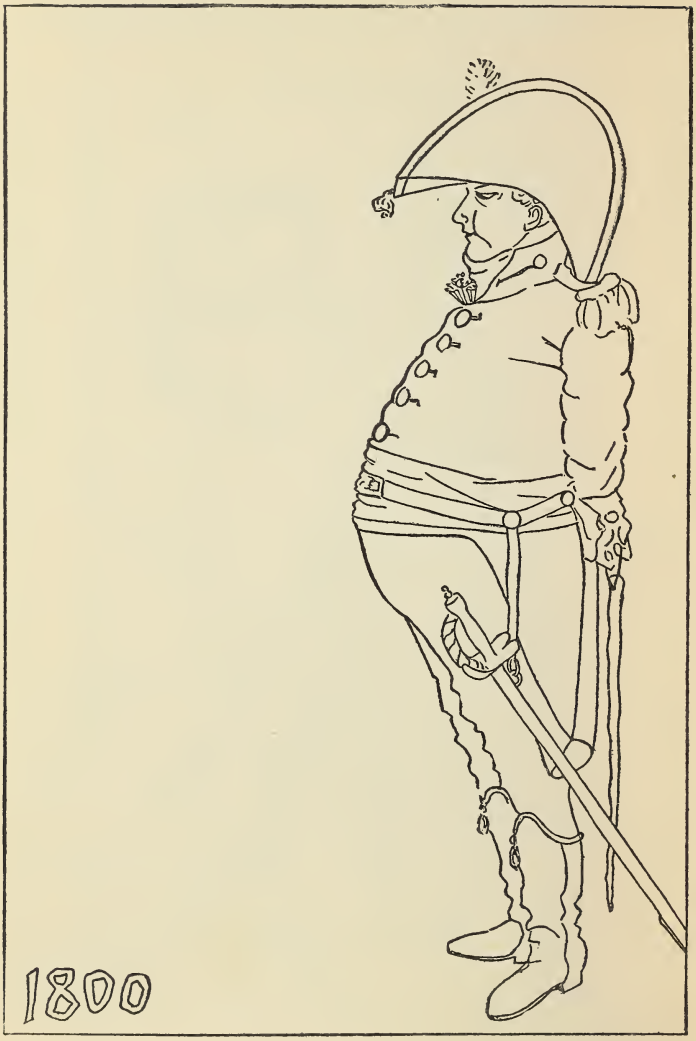


SIZE 38

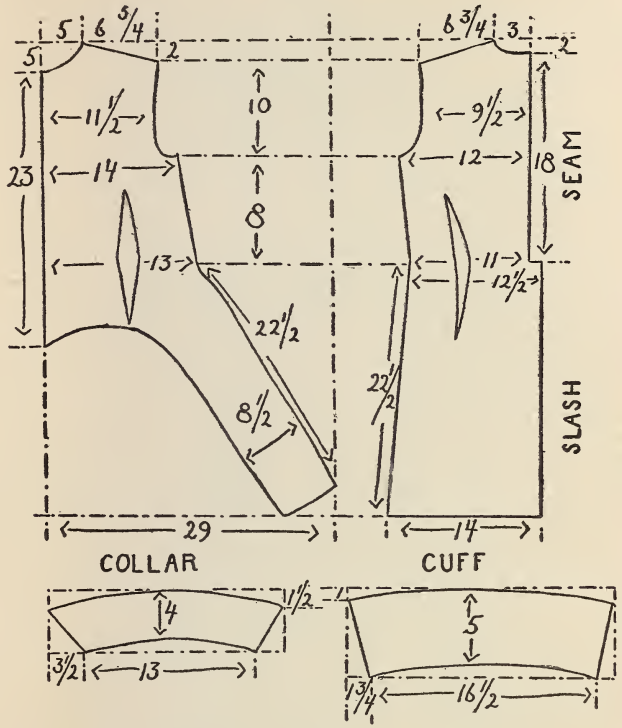

1700

DRESS 1700


FRONT CUT 2
BACK
FOLD
SIDE CUT 4
UNDER SKIRT FRONT AND BACK CUT 2
SLEEVE
OVERSKIRT-2½ STRAIGHT WIDTHS, 48" LONG AT SIDES, 78" IN BACK. GATHER FROM HIP TO HIP ACROSS BACK.
SIZE 36


1800

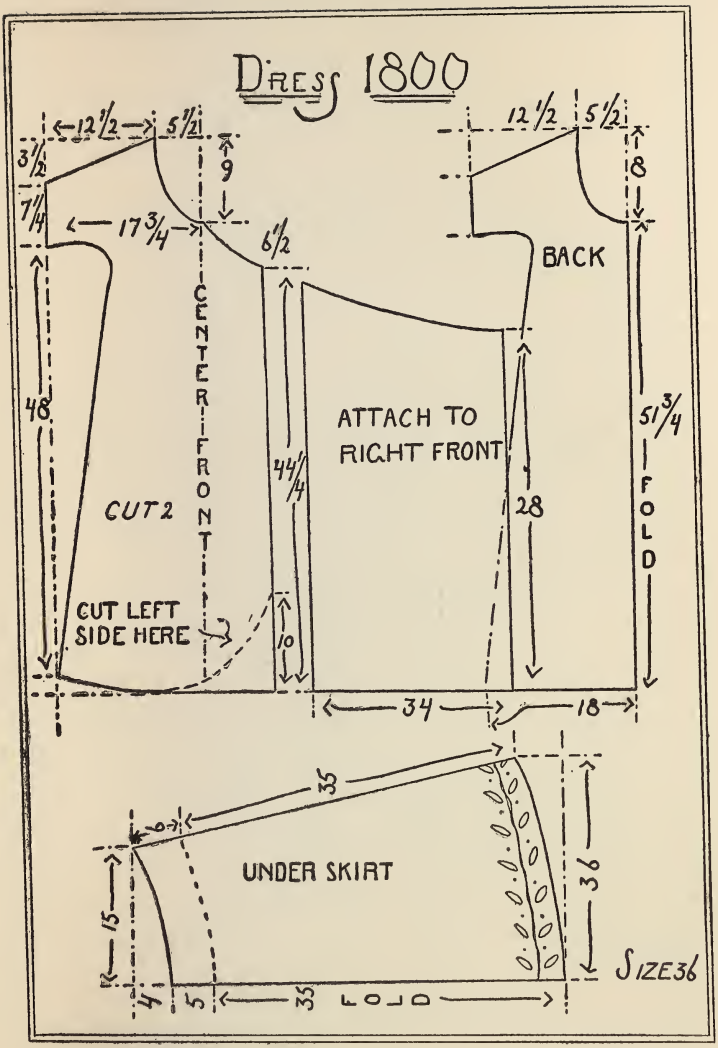
A BRITISHER IN 1800



FOR BREECHES AND SLEEVE SEE PATTERNS IN CHAPTER IX. LENGTHEN TO ABOUT 39" FROM WAIST USE THE FITTED SLEEVE.

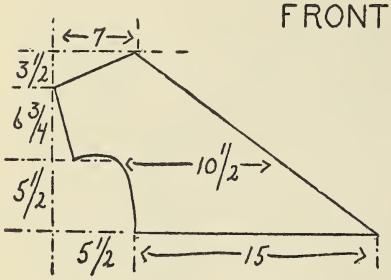
SIZE 38


1800

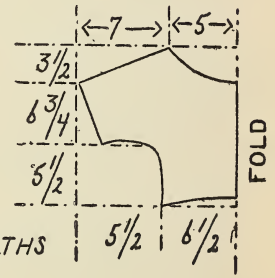

DRESS 1800
12 1/2
5 1/2
3 1/2
7/4
9
17 3/4
6 1/2
CENTER FRONT
48
CUT 2
CUT LEFT SIDE HERE
44/4
10
ATTACH TO RIGHT FRONT
28
34
18
12 1/2
5 1/2
8
BACK
51 3/4
FOLD
35
UNDER SKIRT
15
4
5
35
FOLD
36
SIZE 36

Dress 1800

FRONT - CUT 2



BACK

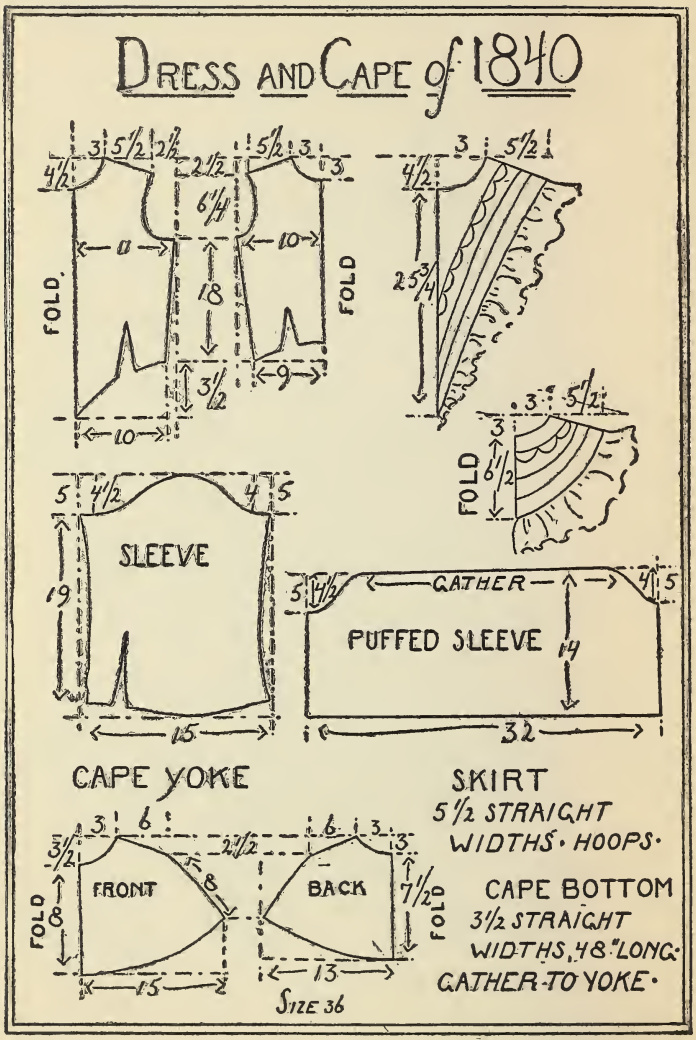


SKIRT-

TWO STRAIGHT LENGTHS 48" LONG, GATHERED INTO A 30" BELT.

Size 36


1840


DRESS AND CAPE of 1840
FOLD
FOLD
SLEEVE
GATHER
PUFFED SLEEVE
FOLD
CAPE YOKE
FRONT
BACK
FOLD
SIZE 36
SKIRT
5½ STRAIGHT WIDTHS · HOOPS ·
CAPE BOTTOM
3½ STRAIGHT WIDTHS, 48" LONG · GATHER TO YOKE ·

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